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Curriculum Vitæ

EDUCATION

PhD, Computer Science , <i>University of Maryland, MD</i>	2007-08 – 2013-08
Specialty: Information Visualization/Human-Computer Interaction, Advisor: Professor Ben Shneiderman	
Dissertation: “ Measuring and Improving the Readability of Network Visualizations ”	
MS, Computer Science , <i>University of Maryland, MD</i>	2007-08 – 2009-05
BA, magna cum laude, Double Major in Computer Science & Mathematics , <i>Cornell College, IA</i>	2003-08 – 2007-06

RESEARCH EXPERIENCE

Northeastern University , <i>Khoury College of Computer Sciences</i> — Assistant Professor	2016-08 – ...
• Kostas Research Institute	2017-09 – ...
• Northeastern University Visualization Consortium	2016-07 – ...
• Personal Health Informatics PhD program	2016-07 – ...
• Network Science Institute	2016-07 – ...
• NULab for Texts, Maps, and Networks	2016-07 – ...
IBM , <i>Watson & Watson Health Cognitive Visualization Lab</i> — Research Scientist	2014-06 – 2016-06
IBM , <i>Research & Watson Cognitive Visualization Lab</i> — Postdoctoral Researcher	2013-09 – 2014-06
University of Maryland , <i>Computer Science & iSchool</i> — Research Assistant	2010-08 – 2011-12 & 2012-05 – 2013-05
Microsoft Research , <i>Visualization and Interaction for Business and Entertainment</i> — Research Intern	2010-06 – 2010-09
University of Maryland , <i>Computer Science & iSchool</i> — Research Assistant	2008-06 – 2010-05
NIST , <i>Manufacturing Engineering Lab</i> — Research Fellow	2006-06 – 2006-08 & 2007-06 – 2007-08

HONORS AND AWARDS



NSF CAREER Award on general and optimal layered network visualization	2022
SIGMOD Most Reproducible Paper Award	2021
IBM Manager’s Choice Award for Showing a Personal Interest and running the intern summer social program	2014
Yahoo-HCIL Data Visualization Research Award for my work on motif simplification	2013
Selected as University of Maryland student representative to the Human Computer Interaction Consortium Workshop	2013
University of Maryland Jacob K. Goldhaber & Computer Science Department Travel Grants	2012 – 2013
University of Maryland Distinguished Teaching Assistant Award (Top 10% of TAs)	2012
ACM Turing Centenary Celebration Student Scholarship	2012
Featured as an NSF Discoveries Report : <i>A new visualization method makes research more organized and efficient</i>	2011
Featured in a Linux Magazine cover story : <i>Security Visualization Tools</i>	2009
Cornell College Senior Computer Science Student Achievement Award	2007
Cornell College Dean’s List (all 8 semesters)	2003 – 2007
Nominated to Mortar Board National College Senior Honor Society in recognition of service & scholastic achievements	2006
Ed Hill Mathematics Scholar	2006
Cornell College First Year Computer Science Student Achievement Award	2004
First place in ACM N. Central N. America Programming Contest	2004
Cornell College National Excellence Scholarship	2003
National Merit Finalist	2003

The web version of this list includes links to the full text PDFs, supplemental materials, video demos, homepages, abstracts, and BibTeX and is available from: <https://dunne.dev/pubs/>.

👨 = Graduate student advisor or direct mentor/supervisor. 👨 = Graduate student committee member. 🎓 = Postdoc supervised. 🔓 = A link to open access preprints and/or supplemental materials. 🌐 = A link to the website for the paper.

Refereed Journal Articles

- [18] Uzma Haque Syeda 👨, **Cody Dunne**, and Michelle A. Borkin. “Process and pitfalls of online teaching and learning with design study “lite” methodology: A retrospective analysis”. In: *Computer Graphics Forum*. EuroVis/CGF (2023). EuroVis ’23. Preprint & Supplemental material: <https://osf.io/4bjfs> 🔓, homepage 🌐.
- [17] Wolfgang Gatterbauer, **Cody Dunne**, H. V. Jagadish, and Mirek Riedewald. “Principles of Query Visualization”. In: *IEEE Data Engineering Bulletin*. DEBull 45.3 (2022). Preprint: <https://arxiv.org/abs/2208.01613> 🔓, homepage 🌐, pp. 47–67.
- [16] Laura South 👨, David Saffo 👨, Olga Vitek, **Cody Dunne**, and Michelle A. Borkin. “Effective use of Likert scales in visualization evaluations: a systematic review”. In: *Computer Graphics Forum*. EuroVis/CGF 41.3 (2022). EuroVis ’22. Preprint & supplemental material: <https://osf.io/exbz8> 🔓, homepage 🌐, pp. 43–55. DOI: 10.1111/cgf.14521.
- [15] Sara Di Bartolomeo 👨, Alexis Pister, Paolo Buono, Catherine Plaisant, **Cody Dunne**, and Jean-Daniel Fekete. “Six methods for transforming layered hypergraphs to apply layered graph layout algorithms”. In: *Computer Graphics Forum*. EuroVis/CGF 41.3 (2022). EuroVis ’22. Preprint & Supplemental material: <https://osf.io/grvwu> 🔓, homepage 🌐, pp. 259–270. DOI: 10.1111/cgf.14538.
- [14] Deokgun Park, Mohamed Suhail, Minsheng Zheng 👨, **Cody Dunne**, Eric Ragan, and Niklas Elmqvist. “StoryFacets: A design study on storytelling with visualizations for collaborative data analysis”. In: *Information Visualization*. IVI 21.0 (2022). Preprint: <https://osf.io/48esj> 🔓, homepage 🌐, pp. 3–16. DOI: 10.1177/14738716211032653.
- [13] Justin Raynor 👨, Tarik Crnovrsanin 🎓, Sara Di Bartolomeo 👨, Laura South 👨, David Saffo 👨, and **Cody Dunne**. “The state of the art in BGP visualization tools: A mapping of visualization techniques to cyberattack types”. In: *IEEE Transactions on Visualization and Computer Graphics*. VIS/TVCG (2022). VIS ’22. Preprint & Supplemental Material: <https://osf.io/pkqc9> 🔓, homepage 🌐, pp. 1–11. DOI: 10.1109/TVCG.2022.3209412.
- [12] Yifan Sun, Yixuan Zhang 👨, Ali Mosallaei, Michael D. Shah, **Cody Dunne**, and David Kaeli. “Daisen: A framework for visualizing detailed GPU execution”. In: *Computer Graphics Forum*. EuroVis/CGF 40.3 (2021). EuroVis ’21. Preprint & Supplemental material: <https://osf.io/73ry8> 🔓, homepage 🌐, pp. 239–250. DOI: 10.1111/cgf.14303.
- [11] Michail Schwab 👨, David Saffo 👨, Nicholas Bond, Shash Sinha, **Cody Dunne**, Jeff Huang, James Tompkin, and Michelle A. Borkin. “Scalable Scalable Vector Graphics: Automatic translation of interactive SVGs to a multithread VDOM for fast rendering”. In: *IEEE Transactions on Visualization and Computer Graphics*. TVCG (2021). Preprint & supplemental material: <https://osf.io/ypxz2> 🔓, homepage 🌐. DOI: 10.1109/TVCG.2021.3059294.
- [10] Sara Di Bartolomeo 👨, Mirek Riedewald, Wolfgang Gatterbauer, and **Cody Dunne**. “STRATISFINAL LAYOUT: A modular optimization model for laying out layered node-link network visualizations”. In: *IEEE Transactions on Visualization and Computer Graphics*. VIS/TVCG 28.1 (2021). VIS ’21. Preprint & Supplemental Material: <https://osf.io/qdyt9> 🔓, homepage 🌐, pp. 324–334. DOI: 10.1109/TVCG.2021.3114756.
- [9] David Saffo 👨, Aristotelis Leventidis 👨, Twinkle Jain, Michelle A. Borkin, and **Cody Dunne**. “Data Comets: designing a visualization tool for analyzing autonomous aerial vehicle logs with grounded evaluation”. In: *Computer Graphics Forum*. EuroVis/CGF 39.3 (2020). EuroVis ’20. Preprint & supplemental material: <https://osf.io/a4hfd> 🔓, homepage 🌐, pp. 455–468. DOI: 10.1111/cgf.13994.
- [8] Michail Schwab 👨, David Saffo 👨, Yixuan Zhang 👨, Shash Sinha, Cristina Nita-Rotaru, James Tompkin, **Cody Dunne**, and Michelle A. Borkin. “VisConnect: distributed event synchronization for collaborative visualization”. In: *IEEE Transactions on Visualization and Computer Graphics*. VIS/TVCG (2020). VIS ’20. Preprint & supplemental material: <https://osf.io/ut7e6> 🔓, homepage 🌐, pp. 1–1. DOI: 10.1109/TVCG.2020.3030366.
- [7] Sara Di Bartolomeo 👨, Yixuan Zhang 👨, Fangfang Sheng 👨, and **Cody Dunne**. “Sequence Braiding: Visual Overviews of Temporal Event Sequences and Attributes”. In: *IEEE Transactions on Visualization and Computer Graphics*. VIS/TVCG (2020). VIS ’20. Preprint & supplemental material: <https://osf.io/mq2wt> 🔓, homepage 🌐, pp. 1–1. DOI: 10.1109/TVCG.2020.3030442.
- [6] Aditeya Pandey 👨, Harsh Shukla, Geoffrey S. Young, Lei Qin, Amir A. Zamani, Liangge Hsu, Raymond Huang, **Cody Dunne**, and Michelle A. Borkin. “CerebroVis: designing an abstract yet spatially contextualized cerebral arteries network visualization”. In: *IEEE Transactions on Visualization and Computer Graphics*. VIS/TVCG (2019). VIS ’19. Preprint & supplemental material: <https://osf.io/63y5c> 🔓, homepage 🌐, pp. 1–1. DOI: 10.1109/TVCG.2019.2934402.

- [5] Yixuan Zhang , Kartik Chanana , and **Cody Dunne**. “IDMVis: Temporal event sequence visualization for type 1 diabetes treatment decision support”. In: *IEEE Transactions on Visualization and Computer Graphics*. VIS/TVCG 25.1 (2018). VIS '18, homepage [□](#), pp. 512–522. DOI: [10.1109/TVCG.2018.2865076](https://doi.org/10.1109/TVCG.2018.2865076).
- [4] **Cody Dunne**, Steven I. Ross, Ben Shneiderman, and Mauro Martino. “Readability metric feedback for aiding node-link visualization designers”. In: *IBM Journal of Research and Development*. IBM JRD 59.2/3 (2015), 14:1–14:16. DOI: [10.1147/JRD.2015.2411412](https://doi.org/10.1147/JRD.2015.2411412).
- [3] Snigdha Chaturvedi, **Cody Dunne**, Zahra Ashktorab, Rajan Zacharia, and Ben Shneiderman. “Group-in-a-Box meta-layouts for topological clusters and attribute-based groups: space efficient visualizations of network communities and their ties”. In: *Computer Graphics Forum*. CGF 33.8 (2014), pp. 52–68. DOI: [10.1111/cgf.12400](https://doi.org/10.1111/cgf.12400).
- [2] Ben Shneiderman, **Cody Dunne**, Puneet Sharma, and Ping Wang. “Innovation trajectories for information visualizations: Comparing treemaps, cone trees, and hyperbolic trees”. In: *Information Visualization*. IVI 11.2 (2012), pp. 87–105. DOI: [10.1177/1473871611424815](https://doi.org/10.1177/1473871611424815).
- [1] **Cody Dunne**, Ben Shneiderman, Robert Gove, Judith Klavans, and Bonnie Dorr. “Rapid understanding of scientific paper collections: Integrating statistics, text analytics, and visualization”. In: *Journal of the American Society for Information Science and Technology*. JASIST 63.12 (2012), pp. 2351–2369. DOI: [10.1002/asi.22652](https://doi.org/10.1002/asi.22652).

Refereed Conference/Symposium/Workshop Papers

Visualization and human-computer interaction (HCI) research is interdisciplinary and valuable to readers from many areas. Moreover, premier visualization and HCI conferences (e.g., VIS, CHI, EuroVis) are highly selective, archived, and exceed many relevant journals in terms of both selectivity and impact.

- [31] David Saffo , Andrea Batch, **Cody Dunne**, and Niklas Elmquist. “Through their eyes and in their shoes: providing group awareness during collaboration across virtual reality and desktop platforms”. In: *Proc. ACM Conference on Human Factors in Computing Systems*. CHI. Preprint & supplemental material: <https://osf.io/vmcng/> , homepage [□](#). 2023. DOI: [10.1145/3544548.3581093](https://doi.org/10.1145/3544548.3581093).
- [30] Sara Di Bartolomeo , Giorgio Severi, Victor Schetinger, and **Cody Dunne**. “Ask and you shall receive (a graph drawing): Testing ChatGPT’s potential to apply graph layout algorithms”. In: EuroVis. EuroVis '23. Preprint & Supplemental material: <https://osf.io/n5rxd/>, homepage [□](#). 2023.
- [29] Liudas Panavas , Amy Worth , Tarik Crnovrsanin , Tejas Sathyamurthi, Sara Cordes, Michelle A. Borkin, and **Cody Dunne**. “Juvenile graphical perception: a comparison between children and adults”. In: *Proc. ACM Conference on Human Factors in Computing Systems*. CHI. Preprint & Supplemental Material: <https://osf.io/ygrdv/> , homepage [□](#). 2022. DOI: [10.1145/3491102.3501893](https://doi.org/10.1145/3491102.3501893).
- [28] Lonni Besançon and **Cody Dunne**. “DyStopia: Into a potential future of IEEE VIS under Plan S”. In: *Proc. alt.VIS workshop at IEEE VIS*. alt.VIS. Preprint & supplemental material: <https://osf.io/gbcdr/> , homepage [□](#). 2022. DOI: [10.31219/osf.io/gbcdr](https://doi.org/10.31219/osf.io/gbcdr).
- [27] Sara Di Bartolomeo , Matt Lang, and **Cody Dunne**. “The worst graph layout algorithm ever”. In: *Proc. alt.VIS workshop at IEEE VIS*. alt.VIS. Supplemental material: <https://osf.io/x75s6/> , homepage [□](#). 2022.
- [26] David Saffo , Sara Di Bartolomeo , Liudas Panavas , Caglar Yildirim, and **Cody Dunne**. “Two paths towards the future of remote studies using social VR”. In: *Proc. 1st XR Remote Research Workshop @ CHI 2021*. XR-CHI. Preprint & supplemental material: <https://osf.io/pk2rq/> , homepage [□](#). 2021. DOI: [10.31219/osf.io/pk2rq](https://doi.org/10.31219/osf.io/pk2rq).
- [25] David Saffo , Sara Di Bartolomeo , Caglar Yildirim, and **Cody Dunne**. “Remote and collaborative virtual reality experiments via social VR platforms”. In: *Proc. ACM Conference on Human Factors in Computing Systems*. CHI. Preprint & supplemental material: <https://osf.io/c2amz/> , homepage [□](#). 2021. DOI: [10.1145/3411764.3445426](https://doi.org/10.1145/3411764.3445426).
- [24] Barrett Ens, Benjamin Bach, Maxime Cordeil, Ulrich Engelke, Marcos Serrano, Wesley Willett, Arnaud Prouzeau, Christoph Anthes, Wolfgang Büschel, **Cody Dunne**, Tim Dwyer, Jens Grubert, Jason H. Haga, Nurit Kirshenbaum, Dylan Kobayashi, Tica Lin, Monsurat Olaosebikan, Fabian Pointecker, David Saffo , Nazmus Saquib, Dieter Schmalstieg, Danielle Albers Szafir, Matt Whitlock, and Yalong Yang. “Grand challenges in immersive analytics”. In: *Proc. ACM Conference on Human Factors in Computing Systems*. CHI. Preprint: <https://prism.ucalgary.ca/handle/1880/112984> , homepage [□](#). 2021. DOI: [10.1145/3411764.3446866](https://doi.org/10.1145/3411764.3446866).
- [23] Sara Di Bartolomeo , Aditeya Pandey , Aristotelis Sigiouan Leventidis , David Saffo , Uzma Haque Syeda , Elin Carstensdottir, Magy Seif El-Nasr, Michelle A. Borkin, and **Cody Dunne**. “Evaluating the effect of timeline shape on visualization task performance”. In: *Proc. ACM Conference on Human Factors in Computing Systems*. CHI. Preprint & supplemental material: <https://osf.io/2kdb9/> , homepage [□](#). 2020. DOI: [10.1145/3313831.3376237](https://doi.org/10.1145/3313831.3376237).

- [22] Aristotelis Leventidis , Jiahui Zhang , **Cody Dunne**, Wolfgang Gatterbauer, H. V. Jagadish, and Mirek Ridewald. “QueryVis: Logic-based diagrams help users understand complicated SQL queries faster”. In: *Proc. 2020 ACM SIGMOD International Conference on Management of Data*. SIGMOD. Preprint & supplemental material: <https://osf.io/btszh> , **SIGMOD 2021 Most Reproducible Paper Award** , homepage . 2020, pp. 2303–2318. DOI: 10.1145/3318464.3389767.
- [21] David Saffo , Sara Di Bartolomeo , Caglar Yildirim, and **Cody Dunne**. “Crowdsourcing virtual reality experiments using VRChat”. In: *Proc. SIGCHI Conference on Human Factors in Computing Systems Late-Breaking Work*. CHI LBW. Preprint & supplemental material: <https://osf.io/w569f> , homepage . 2020, pp. 1–8. DOI: 10.1145/3334480.3382829.
- [20] David Saffo , Sara Di Bartolomeo , Caglar Yildirim, and **Cody Dunne**. “Two dimensions for organizing immersive analytics: toward a taxonomy for facet and position”. In: *Proc. 4th Workshop on Immersive Analytics: Envisioning Future Productivity for Immersive Analytics*. IA. Preprint: <https://osf.io/pk2rq> , homepage . 2020.
- [19] Cameron Moy, Julia Belyakova, Alexi Turcotte, Sara Di Bartolomeo , and **Cody Dunne**. “Just TYPEical: Visualizing common function type signatures in R”. In: VIS. Preprint & supplemental material: <https://osf.io/pyqac> , homepage . 2020. DOI: 10.1109/VIS47514.2020.00031.
- [18] Neha Makhija, Mansi Jain, Nikolaos Tziavelis, Laura Di Rocco, Sara Di Bartolomeo , and **Cody Dunne**. “Loch Prospector: Metadata visualization for lakes of open data”. In: VIS. Preprint & supplemental material: <https://osf.io/2s76d> , homepage . 2020. DOI: 10.1109/VIS47514.2020.00032.
- [17] Yixuan Zhang , Sara Di Bartolomeo , Fangfang Sheng , and **Cody Dunne**. “Evaluating alignment approaches in superimposed time-series and temporal event-sequence visualizations”. In: vol. 25. VIS 1. Preprint & supplemental material: <https://osf.io/q764s> , homepage . 2019, pp. 512–522. DOI: 10.1109/VISUAL.2019.8933584.
- [16] Sarah Campbell, Zheng-yan Yu, Sarah Connell, and **Cody Dunne**. “Close and distant reading via named entity network visualization: a case study of Women Writers Online”. In: *Proc. 3rd Workshop on Visualization for the Digital Humanities*. VIS4DH. 2018.
- [15] Carl Skelton, Manpreet Kaur Juneja, **Cody Dunne**, Jeremy Bowes, Steve Szigeti, Minsheng Zheng , Marcus Gordon, and Sara Diamond. “Analyzing student travel patterns with augmented data visualizations”. In: *Proc. ACM Conference Companion Publication on Designing Interactive Systems*. DIS. 2017, pp. 172–176. DOI: 10.1145/3064857.3079140.
- [14] **Cody Dunne**, Carl Skelton, Sara Diamond, Isabel Meirelles, and Mauro Martino. “Quantitative, qualitative, and historical urban data visualization tools for professionals and stakeholders”. In: *Proc. Distributed, Ambient and Pervasive Interactions, Held as Part of HCI International*. DAPI. 2016, pp. 405–416. DOI: 10.1007/978-3-319-39862-4_37.
- [13] **Cody Dunne**, Michael Muller, Nicola Perra, and Mauro Martino. “VoroGraph: visualization tools for epidemic analysis”. In: *Extended Abstracts of the ACM Conference on Human Factors in Computing Systems*. CHI EA. 2015, pp. 255–258. DOI: 10.1145/2702613.2725459.
- [12] Berlingiero Michele, Stefano Braghin, Francesco Calabrese, **Cody Dunne**, Yiannis Gkoufas, Mauro Martino, Jamie Rasmussen, and Steven Ross. “S&P360: multidimensional perspective on companies from online data sources”. In: *Proc. European Conference on Machine Learning and Principles and Practice of Knowledge Discovery in Databases*. ECML-PKDD. 2015. DOI: 10.1007/978-3-319-23461-8_39.
- [11] Sehrish Amjad, Hamid Mukhtar, and **Cody Dunne**. “Automating scholarly article data collection with Action Science Explorer”. In: *Proc. 8th IEEE 2014 International Conference on Open-Source Systems and Technologies*. ICOSST. 2014. DOI: 10.1109/ICOSST.2014.7029338.
- [10] **Cody Dunne** and Ben Shneiderman. “Motif simplification: improving network visualization readability with fan, connector, and clique glyphs”. In: *Proc. ACM Conference on Human Factors in Computing Systems*. CHI. 2013, pp. 3247–3256. DOI: 10.1145/2470654.2466444.
- [9] Sana Malik, Alison Smith, Timothy Hawes, Panagis Papadatos, Jianyu Li, **Cody Dunne**, and Ben Shneiderman. “TopicFlow: visualizing topic alignment of Twitter data over time”. In: *Proc. IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining*. ASONAM. 2013, pp. 720–726. DOI: 10.1145/2492517.2492639.
- [8] **Cody Dunne**, Nathalie Henry Riche, Bongshin Lee, Ronald A. Metoyer, and George G. Robertson. “GraphTrail: Analyzing large multivariate, heterogeneous networks while supporting exploration history”. In: *Proc. ACM Conference on Human Factors in Computing Systems*. CHI. 2012, pp. 1663–1672. DOI: 10.1145/2207676.2208293.
- [7] Ben Shneiderman and **Cody Dunne**. “Interactive network exploration to derive insights: Filtering, clustering, grouping, and simplification”. In: *Proc. International Symposium on Graph Drawing*. Vol. 7704. GD. Keynote, homepage . 2012, pp. 2–18. DOI: 10.1007/978-3-642-36763-2_2.
- [6] Robert Gove, **Cody Dunne**, Ben Shneiderman, Judith Klavans, and Bonnie Dorr. “Evaluating visual and statistical exploration of scientific literature networks”. In: *Proc. 2011 IEEE Symposium on Visual Languages and Human-Centric Computing*. VL/HCC. 2011, pp. 217–224. DOI: 10.1109/VLHCC.2011.6070403.

- [5] Robert Gove, Nick Gramsky, Rose Kirby, Emre Sefer, Awalin Sopan, **Cody Dunne**, Ben Shneiderman, and Meirav Taieb-Maimon. “NetVisia: Heat map & matrix visualization of dynamic social network statistics & content”. In: *Proc. 2011 IEEE 3rd International Conference on Social Computing*. SocialCom. 2011, pp. 19–26. DOI: [10.1109/PASSAT/SocialCom.2011.216](https://doi.org/10.1109/PASSAT/SocialCom.2011.216).
- [4] Elizabeth M. Bonsignore, **Cody Dunne**, Dana Rotman, Marc Smith, Tony Capone, Derek L. Hansen, and Ben Shneiderman. “First steps to NetViz Nirvana: Evaluating social network analysis with NodeXL”. In: *Proc. 2009 International Conference on Computational Science and Engineering*. Vol. 4. CSE. 2009, pp. 332–339. DOI: [10.1109/CSE.2009.120](https://doi.org/10.1109/CSE.2009.120).
- [3] Saif Mohammad, **Cody Dunne**, and Bonnie Dorr. “Generating high-coverage semantic orientation lexicons from overtly marked words and a thesaurus”. In: *Proc. 2009 conference on Empirical Methods in Natural Language Processing*. EMNLP. 2009, pp. 599–608.
- [2] Marc Smith, Ben Shneiderman, Natasa Milic-Frayling, Eduarda Mendes Rodrigues, Vladimir Barash, **Cody Dunne**, Tony Capone, Adam Perer, and Eric Gleave. “Analyzing (social media) networks with NodeXL”. In: *Proc. 4th International Conference on Communities and Technologies*. C&T. 2009, pp. 255–264. DOI: [10.1145/1556460.1556497](https://doi.org/10.1145/1556460.1556497).
- [1] Ryan Blue, **Cody Dunne**, Adam Fuchs, Kyle King, and Aaron Schulman. “Visualizing real-time network resource usage”. In: *Proc. 5th international workshop on Visualization for Computer Security*. VizSec. 2008, pp. 119–135. DOI: [10.1007/978-3-540-85933-8_12](https://doi.org/10.1007/978-3-540-85933-8_12).

Technical Reports & Preprints

- [3] Wolfgang Gatterbauer, **Cody Dunne**, and Mirek Riedewald. *Relational Diagrams: a pattern-preserving diagrammatic representation of non-disjunctive Relational Queries*. arXiv. 2022. DOI: [10.48550/ARXIV.2203.07284](https://doi.org/10.48550/ARXIV.2203.07284).
- [2] **Cody Dunne**, Ben Shneiderman, and Todd Johnson. *Understanding patterns in patient discharge summaries using network analysis*. Human-Computer Interaction Lab Tech Report HCIL-2014-06. University of Maryland, 2014.
- [1] **Cody Dunne** and Ben Shneiderman. *Improving graph drawing readability by incorporating readability metrics: A software tool for network analysts*. Human-Computer Interaction Lab Tech Report HCIL-2009-13. University of Maryland, 2009.

Posters

- [10] Liudas Panavas 📧, Tarik Crnovrsanin 📧, Jane Adams, Ali Sargavad, Melanie Tory, and **Cody Dunne**. *Visual utility evaluation of differentially private scatterplots*. Poster at IEEE VIS '22. Preprint & supplemental material: <https://osf.io/5t68s> 📄. 2022. DOI: [10.31219/osf.io/5t68s](https://doi.org/10.31219/osf.io/5t68s).
- [9] Yixuan Zhang 📧, Andrea G. Parker, and **Cody Dunne**. *Information visualization for diabetes management: a literature review*. Poster at PervasiveHealth '20: 4th EAI international conference on pervasive computing technologies for healthcare. 2020.
- [8] David Saffo 📧, Michail Schwab 📧, Michelle A. Borkin, and **Cody Dunne**. *GeoSocialVis: Visualizing geosocial academic co-authorship networks by balancing topology- and geography-based layout*. Poster at InfoVis '19: IEEE Information Visualization. Preprint: <https://osf.io/ykwah> 📄. 2019. DOI: [10.31219/osf.io/ykwah](https://doi.org/10.31219/osf.io/ykwah).
- [7] Aditeya Pandey 📧, Harsh Shukla, Geoffrey S. Young, Lei Qin, **Cody Dunne**, and Michelle A. Borkin. *CerebroVis: Topology and constraint-based network layout for the visualization of cerebrovascular arteries*. Poster at InfoVis '18: IEEE Information Visualization. **Best Poster IEEE VIS 2018** 🏆. 2018.
- [6] **Cody Dunne**. *Interactive data visualization for rapid understanding of scientific literature*. Poster at 29th Annual Human-Computer Interaction Lab Symposium. 2012.
- [5] **Cody Dunne**. *Interactive data visualization for rapid understanding of scientific literature*. Poster at VAC '11: Visual Analytics Consortium Meeting. 2011.
- [4] **Cody Dunne**. *Human computer interfaces of tomorrow: how science fiction has become reality*. Poster at 2007 Cornell College Student Symposium. 2007.
- [3] Ian Dees, **Cody Dunne**, Kristen Trahan, and Torey Fickes. *Six-legged robot*. Poster at 2006 Cornell College Student Symposium. 2006.
- [2] **Cody Dunne** and Ian Dees. *Designing and implementing the arithmetic and logic unit for a computer*. Poster at 2005 Cornell College Student Symposium. 2005.
- [1] Evan Metcalf-Putnam and **Cody Dunne**. *The feasibility of using Java3D for first-person game design*. Poster at 2004 Cornell College Student Symposium. 2004.

Patents

- [6] **Cody Dunne**, T. Alan Keahey, Mauro Martino, and Deok Gun Park 📄. “Interactive visualization”. U.S. pat. 10,956,390. 2021.
- [5] **Cody Dunne**, T. Alan Keahey, Mauro Martino, and Deok Gun Park 📄. “Interactive visualization”. U.S. pat. 10,430,436. 2019.
- [4] **Cody Dunne**, T. Alan Keahey, Mauro Martino, and Deok Gun Park 📄. “Interactive visualization”. U.S. pat. 10,423,593. 2019.
- [3] **Cody Dunne**, T. Alan Keahey, Mauro Martino, and Deok Gun Park 📄. “Interactive visualization”. U.S. pat. 10,366,061. 2019.
- [2] **Cody Dunne**, T. Alan Keahey, Mauro Martino, and Deok Gun Park 📄. “Interactive visualization”. U.S. pat. 10,331,636. 2019.
- [1] Nathalie Riche, Bongshin Lee, and **Cody Dunne**. “Interactive visualization for exploring multi-modal, multi-relational, and multivariate graph data”. U.S. pat. 8,743,122. 2014.

Tutorials

- [4] **Cody Dunne**. *D3 and Apatite – so happy together*. Tutorial at Boston Cleanweb Hackathon. 2015.
- [3] **Cody Dunne**. *Network visualization in NodeXL*. Tutorial at Boston Data Swap Skill-A-Thon. 2013.
- [2] **Cody Dunne**. *Charting collections of connections in social media: creating visualizations with NodeXL*. Tutorial at dg.o 2012: 13th Annual International Conference on Digital Government Research. 2012. DOI: [10.1145/2307729.2307795](https://doi.org/10.1145/2307729.2307795).
- [1] **Cody Dunne**. *Charting collections of connections in social media: creating visualizations with NodeXL*. Tutorial at the University of Maryland College of Journalism. 2012.

Talks and Demos Presented

These public presentations are in addition to numerous confidential or minor presentations not listed.

- [76] **Cody Dunne**. *Network visualization*. Guest lecture for the MIT Interactive Data Visualization course. Host: Arvind Satyanarayan. 2021.
- [75] **Cody Dunne**. *Temporal event sequence visualization for type 1 diabetes treatment decision support*. Open Insights Seminar at Harvard Medical School Department of Biomedical Informatics. Host: Nils Gehlenborg. 2019.
- [74] **Cody Dunne**. *Cody Dunne*. Talk at Northeastern University Digital Scholarship Group and NULab for Texts, Maps, and Networks Fall Welcome. 2018.
- [73] **Cody Dunne**. *Interactive visualization techniques for temporally evolving and uncertain geospatial network data: decision support for expeditionary cyber warfare*. Talk at the Northeastern University Kostas Research Institute Office of Naval Research grant Kickoff. 2018.
- [72] **Cody Dunne**. *Temporal event sequence visualization for type 1 diabetes treatment decision support*. Talk at the IEEE VIS Early Career Researcher Summer Camp. 2018.
- [71] **Cody Dunne**. *Human interface: Strengthening the warfighter’s control*. Talk for the Northeastern University Board of Trustees. 2018.
- [70] **Cody Dunne**. *Interactive network and time series visualizations for reasoning and communicating about data*. Talk at BostonCHI. 2018.
- [69] **Cody Dunne**. *Interactive visualization techniques for temporally evolving and uncertain geospatial network data: decision support for expeditionary cyber warfare*. Talk at the Northeastern University Kostas Research Institute Office of Naval Research grant set-up meeting. 2018.
- [68] **Cody Dunne**. *Interactive network visualizations for reasoning, communication, and collaboration*. Guest lecture for DS 4200: Information Presentation and Visualization taught by Michelle Borkin at Northeastern University. 2017.
- [67] **Cody Dunne**. *The benefits, drawbacks, and process of a PhD*. Workshop for MS CS students at Northeastern University. 2017.
- [66] **Cody Dunne**. *Network visualization*. Guest lecture for DS 4200: Information Presentation and Visualization taught by Michelle Borkin at Northeastern University. 2017.
- [65] **Cody Dunne**. *Information visualization*. Talk at the Northeastern University Personal Health Informatics PhD admitted student open house. 2017.
- [64] **Cody Dunne**. *Interactive network visualizations for reasoning, communication, and collaboration*. Talk at the Northeastern University Network Science Institute (NetSci). 2017.
- [63] **Cody Dunne**. *Interactive network visualizations for reasoning, communication, and collaboration*. Talk for the Northeastern University Data Visualization Consortium (NUVis). 2017.

- [62] **Cody Dunne**. *Interactive network visualizations for reasoning, communication, and collaboration*. Guest lecture for CS 7250: Information Visualization: Theory and Applications taught by Michelle Borkin at Northeastern University. 2016.
- [61] **Cody Dunne**. *Watson Discovery Advisor co-occurrence visualization*. Talk for the IBM Watson Discovery Advisor for Life Sciences team. 2016.
- [60] **Cody Dunne**. *Introduction to Watson Graph Layout and StoryFacets*. Talk for the IBM Watson Health Real World Evidence User Group. 2016.
- [59] **Cody Dunne**. *Interactive network visualizations for reasoning, communication, and collaboration*. Talk at Northeastern University. Host: Timothy Bickmore. 2016.
- [58] **Cody Dunne**. *Visualization design ideas for Watson Discovery Advisor for Life Sciences*. Talk for the IBM Watson Discovery Advisor for Life Sciences team. 2016.
- [57] **Cody Dunne**. *Visually displaying data provenance*. Talk for the IBM Watson Health Real-World Evidence Workbench and Emerging Technology Center teams. 2016.
- [56] **Cody Dunne**. *Introduction to Watson Graph Layout, StoryFacets, and visualization research*. Talk for the IBM Watson Health Real World Evidence offering management team. 2016.
- [55] **Cody Dunne** and Tim Stutts. *Introduction to Watson Graph Layout, StoryFacets, and News Explorer*. Talk for IBM Watson Discovery Advisor and Real World Evidence teams. 2016.
- [54] **Cody Dunne**. *Biomedical visualization for Watson Graph Layout and Watson Discovery Advisor*. Talk for the IBM Watson Health Real World Evidence team. 2016.
- [53] **Cody Dunne**. *Collaborative visualization techniques for analysis and communication*. Talk at the MIT Plasma Fusion Science Center. 2015.
- [52] **Cody Dunne**. *Collaborative visualization techniques for analysis and communication*. Talk for the IBM Collaborative Analytics and Decision Making team. 2015.
- [51] **Cody Dunne**. *Visualization techniques for analyzing and sharing relational data*. Talk at OCAD U including members from the University of Toronto. Host: Sara Diamond. 2015.
- [50] **Cody Dunne**. *Perspectives on network visualization*. Talk for the IBM Graph Visualization Working Group. 2015.
- [49] **Cody Dunne**. *Readability metric feedback for aiding node-link visualization designers*. Talk at the IBM Graph Summit. 2015.
- [48] **Cody Dunne**. *EuroVis '15 postmortem*. Talk for IBM Research Collaborative User Experience team. 2015.
- [47] Snigdha Chaturvedi, **Cody Dunne**, Zahra Ashktorab, Rajan Zacharia, and Ben Shneiderman. *Group-in-a-Box meta-layouts for topological clusters and attribute-based groups: space efficient visualizations of network communities and their ties*. Invited CGF talk at EuroVis '15. 2015. DOI: [10.1111/cgf.12400](https://doi.org/10.1111/cgf.12400).
- [46] **Cody Dunne**. *Visualization and HPC*. Guest lecture for the Brown University Intro to High-Performance Computing course. 2015.
- [45] **Cody Dunne**. *Visualization for mapping*. Talk for the National Geospatial-Intelligence Agency. 2014.
- [44] **Cody Dunne**. *Morphing geographic data*. Talk for the IBM SPSS team. 2014.
- [43] **Cody Dunne**. *Capabilities of the Cognitive Visualization Lab*. Talk for Wellesley College team. 2014.
- [42] **Cody Dunne**. *Research briefing on the capabilities of the Cognitive Visualization Lab*. Talk for the University of Toronto. 2014.
- [41] **Cody Dunne**. *Motif Simplification: improving network visualization readability with fan, connector, and clique glyphs*. Talk for IBM People Systems for Smarter Cities and Regions Community. 2013.
- [40] **Cody Dunne**. *Motif Simplification: improving network visualization readability with fan, connector, and clique glyphs*. Talk at IBM HCI Professional Interest Community Workshop on Interactive Data Visualizations. 2013.
- [39] **Cody Dunne**. *High dimension data analytics*. Demo at IBM Research Lab Around. 2013.
- [38] **Cody Dunne**. *Motif simplification*. Demo at 30th Annual Human-Computer Interaction Lab Symposium. 2013.
- [37] **Cody Dunne** and Ben Shneiderman. *Expanding and evaluating network motif simplification*. Talk at 30th Annual Human-Computer Interaction Lab Symposium. 2013.
- [36] **Cody Dunne**. *Measuring and improving the readability of network visualizations*. Talk at The Georgia Institute of Technology. Host: John Stasko. 2013.
- [35] **Cody Dunne**. *Measuring and improving the readability of network visualizations*. Talk at the University of Utah. Host: Christopher Johnson. 2013.

- [34] **Cody Dunne**. *Measuring and improving the readability of network visualizations*. Talk at the FDA Office of Business Informatics. 2013.
- [33] **Cody Dunne**. *Measuring and improving the readability of network visualizations*. Talk at IBM CUE. Host: Jennifer Thom. 2013.
- [32] **Cody Dunne**. *Measuring and improving the readability of network visualizations*. Talk at Indiana University-Purdue University Indianapolis. 2013.
- [31] **Cody Dunne**. *Measuring and improving the readability of network visualizations*. Talk at the University of Nebraska, Lincoln. 2013.
- [30] **Cody Dunne**. *Measuring and improving the readability of network visualizations*. Talk at Oak Ridge National Laboratory. 2013.
- [29] **Cody Dunne**. *Measuring and improving the readability of network visualizations*. Talk at The Johns Hopkins University Applied Physics Laboratory. 2013.
- [28] **Cody Dunne**. *Action Science Explorer: Rapid understanding of document collections: Integrating statistics, text analytics, and visualization*. Demo at Deloitte HIVE. 2013.
- [27] **Cody Dunne** and Ben Shneiderman. “[Motif simplification: improving network visualization readability with fan, connector, and clique glyphs](#)”. In: *Proc. ACM Conference on Human Factors in Computing Systems*. CHI. 2013, pp. 3247–3256. DOI: [10.1145/2470654.2466444](#).
- [26] **Cody Dunne**. *Measuring and improving the readability of network visualizations*. Talk at Microsoft Research. 2012.
- [25] Ben Shneiderman and **Cody Dunne**. *Interactive network exploration to derive insights: filtering, clustering, grouping, and simplification*. Talk at University of Maryland Computer Science Research Seminar Series. 2012.
- [24] **Cody Dunne**. *Measuring and improving the readability of network visualizations*. Talk at NIST Applied and Computational Mathematics Division (ACMD) Seminar Series. 2012.
- [23] Ben Shneiderman and **Cody Dunne**. “[Interactive network exploration to derive insights: Filtering, clustering, grouping, and simplification](#)”. In: *Proc. International Symposium on Graph Drawing*. Vol. 7704. GD. Keynote, [homepage](#) . 2012, pp. 2–18. DOI: [10.1007/978-3-642-36763-2_2](#).
- [22] **Cody Dunne**. *Measuring and improving the readability of network visualizations*. Talk at the University of California, San Francisco, Resource for Biocomputing, Visualization, and Informatics (RBVI). 2012.
- [21] **Cody Dunne**. *Measuring and improving the readability of network visualizations*. Talk at Google HCI Seminar. 2012.
- [20] **Cody Dunne**. *Action Science Explorer: The art of the possible*. Demo at Deloitte HIVE. 2012.
- [19] **Cody Dunne**. *Motif simplification*. Demo at 29th Annual Human-Computer Interaction Lab Symposium. 2012.
- [18] **Cody Dunne** and Ben Shneiderman. *Simplifying network visualizations with motif glyphs*. Talk at 29th Annual Human-Computer Interaction Lab Symposium. 2012.
- [17] **Cody Dunne**, Nathalie Henry Riche, Bongshin Lee, Ronald A. Metoyer, and George G. Robertson. *GraphTrail: Analyzing large multivariate, heterogeneous networks while supporting exploration history*. Demo at CHI '12 Interactivity. 2012.
- [16] **Cody Dunne**, Nathalie Henry Riche, Bongshin Lee, Ronald A. Metoyer, and George G. Robertson. “[GraphTrail: Analyzing large multivariate, heterogeneous networks while supporting exploration history](#)”. In: *Proc. ACM Conference on Human Factors in Computing Systems*. CHI. 2012, pp. 1663–1672. DOI: [10.1145/2207676.2208293](#).
- [15] **Cody Dunne**. *Visual analytic tools for monitoring and understanding the emergence and evolution of innovations in science & technology*. Talk at OECD-KNOWINNO workshop on measuring the use and impact of knowledge exchange mechanisms. 2011.
- [14] **Cody Dunne**. *What researchers want*. Talk at STM 3rd Master Class on Developing Leadership and Innovation. 2011.
- [13] **Cody Dunne**. *NodeXL: network overview, discovery and exploration for Excel*. Demo at 28th Annual Human-Computer Interaction Lab Symposium. University of Maryland, 2011.
- [12] **Cody Dunne**. *STICK: science & technology innovation concept knowledge-base*. Demo at 28th Annual Human-Computer Interaction Lab Symposium. University of Maryland, 2011.
- [11] **Cody Dunne**, Pengyi Zhang, Chen Huang, Jia Sun, Ben Shneiderman, Ping Wang, and Yan Qu. *Analyzing trends in science & technology innovation*. Talk at 28th Annual Human-Computer Interaction Lab Symposium. 2011.
- [10] **Cody Dunne**. *Action Science Explorer: Interactive data visualization for rapid understanding of scientific literature*. Talk at STM Annual Spring Conference. 2011.
- [9] **Cody Dunne**. *iOpener Workbench: tools for rapid understanding of scientific literature*. Demo at 27th Annual Human-Computer Interaction Lab Symposium. 2010.

- [8] **Cody Dunne**, Ben Shneiderman, Bonnie Dorr, and Judith Klavans. *iOpener Workbench: Tools for rapid understanding of scientific literature*. Talk at 27th Annual Human-Computer Interaction Lab Symposium. 2010.
- [7] Derek Hansen, **Cody Dunne**, and Ben Shneiderman. *Analyzing social media networks with NodeXL*. Proc. 27th Annual Human-Computer Interaction Lab Symposium. 2010.
- [6] Ben Shneiderman, Ping Wang, Yan Qu, and **Cody Dunne**. *Analyzing trends in science & technology innovation*. Proc. 27th Annual Human-Computer Interaction Lab Symposium. 2010.
- [5] Elizabeth M. Bonsignore and **Cody Dunne**. *First steps to NetViz Nirvana: evaluating social network analysis with NodeXL*. Talk at Microsoft Research. 2009.
- [4] Elizabeth M. Bonsignore, **Cody Dunne**, Dana Rotman, Marc Smith, Tony Capone, Derek L. Hansen, and Ben Shneiderman. “First steps to NetViz Nirvana: Evaluating social network analysis with NodeXL”. In: *Proc. 2009 International Conference on Computational Science and Engineering*. Vol. 4. CSE. 2009, pp. 332–339. DOI: [10.1109/CSE.2009.120](https://doi.org/10.1109/CSE.2009.120).
- [3] **Cody Dunne** and Ben Shneiderman. *Readability metrics for network visualization*. Talk at 26th Annual Human-Computer Interaction Lab Symposium. 2009.
- [2] Ryan Blue, **Cody Dunne**, Adam Fuchs, Kyle King, and Aaron Schulman. “Visualizing real-time network resource usage”. In: *Proc. 5th international workshop on Visualization for Computer Security*. VizSec. 2008, pp. 119–135. DOI: [10.1007/978-3-540-85933-8_12](https://doi.org/10.1007/978-3-540-85933-8_12).
- [1] **Cody Dunne**, Brian Steere, and Raine Lourie. *How we can serve millions: software engineering for the web*. Talk at 2007 Cornell College Student Symposium. 2007.

GRANTS

In my time at Northeastern, I contributed to writing grants that have been awarded \$26.8M overall. My individual component of these grants has totalled over \$1.94M.

U.S. Special Operations Command (USSOCOM) <i>Supply Chain Critical Infrastructure Risk Management Platform (SCRIMP)</i> . Deniz Erdogmus (PI), Ozlem Ergun, Mirek Riedewald, Cody Dunne, Silvio Amir.	2023-01 – 2024-07 \$1.1M (\$213k)
U.S. Army Corps of Engineers <i>Advanced terrain analytics to support tactical scale planning and operations over varied environments in support of the U.S. Army Engineer Research and Development Center - Geospatial Research Laboratory</i> . Kaushik Chowdhury (PI), Cody Dunne, Paul Hand, Stratis Ioannidis, and Shelley Lin. W912HZ-21-BAA-01.	2022-09 – 2023-08 \$1.8M (\$100k)
NSF CAREER: General and optimal layered network visualization . Cody Dunne (PI). CISE IIS III #2145382.	2022-05 – 2027-04 \$600k
U.S. Army DEVCOM Analysis Center <i>Testing & Evaluation for Soldier-Device Teaming Compatibility, Vulnerability, and Durability in Emergent Situations</i> . Deniz Erdogmus (PI), Pau Closas, Cody Dunne, Raymod Fu, Holly Brugge Jimison, Sagar V. Kamarthi, Engin Kirda, Sarah Ostadabbas, Taskin Padir, Misha Pavel, Karen Sue Quigley, Aanjhan Ranganathan, Milad Siami, Hanumant Singh, Rifat Sipahi, and Gene Tunik. W911NF2220001.	2022-01 – 2024-01 \$14.6M (\$212k)
ORISE/ODNI <i>Visualizations, models, and benchmarks for predicting drone intent</i> . Tarik Crnovrsanin and Cody Dunne (Co-PIs). Intelligence Community Postdoctoral Research Fellowship Program.	2021-10 – 2023-09 \$184k (\$34k)
ONR <i>Advancing expeditionary warfighter technologies</i> . Kaushik Chowdhury (PI), Albert-László Barabási, Pau Closas, Katheryn Coronges, Cody Dunne, Tommaso Melodia, Cristina Nita-Rotaru, Guevara Noubir, Aanjhan Ranganathan, Hanumant Singh, and Gunar Schirner. BAA N00014-19-S-B001.	2020-09 – 2022-12 \$4.5M (\$320k)
Northeastern University <i>Visualizing autonomous machine data</i> . Cody Dunne and Aanjhan Ranganathan (Co-PIs). Khoury College of Computer Sciences Seed Grant.	2019-09 – 2020-08 \$30k
ONR <i>Advancing warfighter technologies in the area of expeditionary cyber</i> . Kaushik Chowdhury (PI), Pau Closas, Cody Dunne, Sagar Kamarthi, Yingzi Lin, Tommaso Melodia, Guevara Noubir, Aanjhan Ranganathan, Gunar Schirner, and Hanumant Singh. BAA N00014-18-S-B001 / OTA N00014-18-9-0001.	2018-06 – 2019-10 \$3.7M (\$125k)
NSF CRII: III: Visualization of event sequences for decision making . Cody Dunne (PI). CISE IIS III #1755901.	2018-04 – 2020-09 \$175k
Northeastern University <i>Visualizing database queries</i> . Cody Dunne and Wolfgang Gatterbauer (Co-PIs). Khoury College of Computer Sciences Seed Grant.	2018-09 – 2019-08 \$30k
Northeastern University <i>Spatial and information space partitioning optimization for data visualization</i> . Mehdi Behroozi and Cody Dunne (Co-PIs). TIER1 Grant.	2017-07 – 2018-09 \$50k

Northeastern University *Word vector analysis for TEI/XML: A user-friendly toolkit.* Julia Flanders, Elizabeth Dillon, and Cody Dunne (Co-PIs). TIER1 Grant. 2017-07 – 2018-09 \$50k

TEACHING EXPERIENCE

Northeastern University

Data Science — DS 4200: Information Presentation & Visualization — Instructor Spring 2022
Computer Science — CS 7295: Visualizing Layered Networks & Creator — Instructor Fall 2021
Computer Science — CS 7250: Information Visualization: Theory and Applications — Instructor Spring 2021
Data Science — DS 4200: Information Presentation & Visualization — Instructor Fall 2020
Computer Science — CS 7250: Information Visualization: Theory and Applications — Instructor Spring 2020
Data Science — DS 4200: Information Presentation & Visualization — Instructor Fall 2019
Data Science — DS 5500: Information Visualization: Applications in Data Science — Instructor & Creator Fall 2018
Data Science — DS 4200: Information Presentation & Visualization — Instructor Spring 2018
Computer Science — CS 7260: Visualization for Network Science — Instructor Fall 2017
Computer Science — CS 7260: Visualization for Network Science — Instructor & Creator Fall 2016

University of Maryland

Computer Science — CMSC 132: Object Oriented Programming II — Teaching Assistant Spring 2012
Computer Science — CMSC 132: Object Oriented Programming II — Teaching Assistant Spring 2008
Computer Science — CMSC 131: Object Oriented Programming I — Teaching Assistant Fall 2007

Boys & Girls Clubs of America

Worland, WY — Technology Center — Director 2001-06 – 2003-07

ADVISEES

Post-Doctoral Researchers

Tarik Crnovrsanin, Northeastern University 2021– ...

Ph.D. Advisees

Eduardo Puerta (PhD Candidate), Northeastern University — Computer Science 2022– ...
Connor Wilson (PhD Candidate), Northeastern University — Computer Science 2022– ...
Liudas Panavas (PhD Candidate), Northeastern University — Computer Science 2020– ...
Justin Raynor (PhD Candidate), Northeastern University — Cybersecurity 2020– ...
Sara Di Bartolomeo (PhD Candidate), Northeastern University — Computer Science 2018– ...
David Saffo (PhD Candidate), Northeastern University — Computer Science 2018– ...
Amy Worth (PhD Candidate, Co-Advisee), Northeastern University — Computer Science 2020–2020
Aristotelis Sigiouan Leventidis (PhD Candidate, Co-Advisee), Northeastern University — Computer Science 2018–2020
Yixuan “Janice” Zhang (PhD Candidate, Co-Advisee), Northeastern University — Personal Health Informatics 2017–2020

Ph.D. Committees

Uzma Haque Syeda (PhD Candidate), Northeastern University — Computer Science 2018– ...
Laura South (PhD Candidate), Northeastern University — Computer Science 2018– ...
Aditeya Pandey (PhD), Northeastern University — Computer Science 2016–2022
Michail Schwab (PhD), Northeastern University — Computer Science 2016–2020
Farnaz Irannejad Bisafar (PhD), Northeastern University — Computer Science 2016–2020

Research Assistants

Calvin Yu (MS), Northeastern University — Artificial Intelligence	2022–...
Brenden Collins (MS), Northeastern University — Computer Science	2022
Tejas Sathyamurthi (BS), Northeastern University — Computer Science	2020–...
Manali Shinde (MS), Northeastern University — Health Informatics	2018–2020
Jiahui Zhang (MS), Northeastern University — Computer Science	2018–2020
Fangfang Sheng (MS), Northeastern University — Bioinformatics	2018–2020
Mansi Jain (MS), Northeastern University — Computer Science	2017–2020
Danielle Nguyen (BS), Northeastern University — Computer Science	2017–2019
Emma Reed (BS), Northeastern University — Computer Science	2017–2018
Kartik Chanana (MS), Northeastern University — Computer Science	2017
Minsheng “Davidson” Zheng (MDes), OCAD University — Digital Futures	2015–2017

Interns

Deok Gun Park (PhD), University of Maryland — Computer Science	2015
Daniel Weidele (PhD Candidate), University of Konstanz — Computer and Information Science	2015
Alix Lacoste (PhD), Harvard University — Molecular and Cellular Biology	2014
Levgeniia “Jane” Gutenko (PhD), Stony Brook University — Computer Science	2014

Research Mentees

Sehrish Amjad (MS), National University of Sciences and Technology — Electrical Engineering and Computer Science	2014
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PROFESSIONAL ACTIVITIES/SERVICE

Conference Committees

IEEE VIS — Conference Committee, Open Practices Chair	2022–2023
IEEE VIS — Core Conference Committee & Archive Chair	2018–2019

Conference Host & Organizer

GD — International Symposium on Graph Drawing & Network Visualization	2017
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Session Chair

VIS — IEEE Visualization Conference	2020
InfoVis — IEEE Information Visualization Conference	2017
GD — International Symposium on Graph Drawing & Network Visualization	2016

Conference Program Committees

VIS — IEEE Visualization Conference	2020–2022
GD — International Symposium on Graph Drawing & Network Visualization	2021
VDS — Symposium on Visualization in Data Science	2020
IUI — ACM Conference on Intelligent User Interfaces	2015
business vis — Workshop on Visualization in Business	2015
IDEA — ACM SIGKDD Conference Workshop on Interactive Data Exploration and Analytics	2013–2015
AVI — Advanced Visual Interfaces International Working Conference	2010–2016
SocialCom — ASE/IEEE International Conference on Social Computing	2012

Reviewing for Journals and Conferences

VIS — IEEE Visualization Conference (prior InfoVis + VAST)	2009–2016, 2018, 2019, 2023
TVCG — IEEE Transactions on Visualization and Computer Graphics	2010, 2011, 2014, 2016, 2017, 2020–2022
CHI — ACM SIGCHI Conference on Human Factors in Computing Systems	2012, 2015–2017, 2019, 2022
IVS — Information Visualization	2014, 2018
IMWUT — ACM Interactive, Mobile, Wearable and Ubiquitous Technologies	2018
EuroVis — Eurographics Conference on Visualization	2011–2013, 2016
UIST — ACM Symposium on User Interface Software and Technology	2015
TRB — Transportation Research Board Annual Meeting	2015
JPM — Journal of Personalized Medicine	2014
JASIST — Journal of the American Society for Information Science and Technology	2011–2013
NLPIR4DL — ACL/IJCNLP Workshop on Text and Citation Analysis for Scholarly Digital Libraries	2009

Grant Reviewing

NSF CISE IIS — Computer & Information Science & Engineering: Information and Intelligent Systems (Panelist)	2017, 2023
NSF CISE IIS — Computer & Information Science & Engineering: Information and Intelligent Systems (Reviewer)	2017

Service at Northeastern University

Hiring Committee	2022–2023
Postdoctoral Scholar Committee	2022–2023
PhD CS Curriculum Committee	2021–2022
PhD PHI Committee	2016–2022
Taught service-learning courses in which projects directly benefit the community	2016–2022
Director of Data Visualization Research at The Roux Institute finalist interviewer	2021
PhD CS Admissions Committee	2016–2021
Professor Hiring Host	2020–2021
Hiring Committee for Professor and Director of Digital Health Initiative	2017–2018
Presentation to the Board of Trustees	2018
Led MS workshop on the benefits of getting a PhD	2017

Service at IBM

IBM Cambridge Intern Site Culture Lead, running educational events, social activities, and talk series	2014–2015
Arranged and hosted several visiting speakers	2014–2015
Organized and hosted hiring interviews and talks for numerous candidates	2014–2015
Assist in creation of Cambridge Research and Cognitive Visualization Lab web pages	2015
Kitchen executive and volunteer for Saturday's Bread soup kitchen in Boston	2014–2015

Service at the University of Maryland

Planned and organized the HCIL 30th Anniversary Holiday Party and Poster Session	2012
Volunteer at the annual Human-Computer Interaction Lab Symposium	2009–2012
Contact for admitted students	2009–2012
Volunteer and organizer for admitted student visit day	2009–2011
Panelist for graduate school admissions workshop	2010

Service at Cornell College

President, Torch chapter of the Mortar Board national senior honor society	2007
President, Sigma Tau Service & Social Group, sponsor of an annual scholarship & science fair award	2005–2007
Numerous volunteer activities with the Leadership and Service Office	2003–2007
Treasurer, Sigma Tau Service & Social Group	2005–2006
Treasurer, Cornell College Chapter of the Mathematical Association of America	2006
Sponsored and organized a seminar on repetitive stress injuries	2006
Lunch Buddies elementary school mentoring program	2004–2006
Cornell College Mathematics Department Faculty Search Committee	2005
Sophomore Writing Portfolio Pilot Project	2005
Disc jockey for KRNL (the college radio station)	2003

SELECTED MEDIA COVERAGE

<i>Timelines are not always lines: An evaluation of different timeline shapes</i> , Multiple Views, by Sara Di Bartolomeo	2020-05
<i>One computer scientist's strategies for improving network visualizations</i> , Storybench, by Yan Wu	2017-03
<i>From Giant Hairballs to Clear Patterns in Networks</i> , Visual Business Intelligence, by Stephen Few	2013-05
<i>Network Diagrams Simplified</i> , FlowingData.com, by Kim Rees	2012-05
<i>Thoughts on the HCIL symposium</i> , FlowingData.com, by Kim Rees	2012-05
<i>Google and Twitter "Like" Social Indexing</i> , IEEE Computer Computing Now, by George Lawton	2011-07
สรุปการประชุมทางวิชาการและการฝึกอบรม หัวข้อ , Royal Thai Embassy, Office of Science and Technology	2011-06
<i>NetGrok. Visualizando gráficamente el tráfico de red en tiempo real. Visualización...</i> , seguridadyredes.wordpress.com	2010-11
<i>NetGrok and AfterGlow: Visualizing the Zeus attack against government...</i> , ISSA Journal, by Russ McRee, 8, 40-32	2010-03
<i>Visualizing IDS Output: Tools and Methodology</i> , Presentation at RSA Conference, by Russ McRee	2010-03

OTHER EXPERIENCE

Absaroka Farm , Worland, WY — Agronomist, Seed Collector	2003-07 – 2003-08 & 2004-06 – 2004-08
Wind River Seed , Manderson, WY — System Administrator	2004-06 – 2004-08
Frontier DJ , Manderson, WY — Owner, Disc Jockey	2000-07 – 2003-08

ADDITIONAL INFORMATION

Coding & Development: Developed tools and analyses using D3, JavaScript, HTML, CSS, Python, Altair, NetworkX, Java, NetBeans Platform, Prefuse, C#, WPF, SQL, and L^AT_EX.

Visualization Tools: Developed visualizations using D3, NodeXL, Gephi, Cytoscape, Tableau, Spotfire, Prefuse, and NetworkX. Some experience with many research prototypes.

Spoken Languages: Native English speaker, four courses of undergraduate Spanish.

Citizenship: United States.