

Gabriel Appleby

Cambridge
Massachusetts
USA

✉ Gabriel.Appleby@gmail.com
🌐 gabrielappleby.github.io/
in [gabriel-appleby-35b5a1b1](https://www.linkedin.com/in/gabriel-appleby-35b5a1b1)
🔗 [gabrielappleby](https://github.com/gabrielappleby)
🔗 [HLKpRlAAAAJ](https://www.instagram.com/HLKpRlAAAAJ)



Education

- 2020–Present **Ph.D. Computer Science**, *Tufts University*, Medford, MA.
Advisor: Remco Chang
- 2018–2020 **M.S. Computer Science**, *Tufts University*, Medford, MA.
Advisor: Remco Chang
- 2012–2016 **B.A. Computer Science**, *Oberlin College*, Oberlin, OH.
Thesis: Modeling and High Performance Computing; an MPI Expansion of Nova
Advisor: Bob Geitz
- B.A. Economics**, *Oberlin College*, Oberlin, OH.
Thesis: The Effect of District Size on Student Performance, a Story from Illinois
Advisor: Ron Cheung

Honors & Awards

- 2018 **Provost Fellowship**, *Tufts University*, Medford, MA.
- 2016 **Computer Science Honors**, *Oberlin College*, Oberlin, OH.
Economics Honors, *Oberlin College*, Oberlin, OH.
Phi Beta Kappa, *Oberlin College*, Oberlin, OH.
Sigma Xi, *Oberlin College*, Oberlin, OH.
Omicron Delta Epsilon, *Oberlin College*, Oberlin, OH.
- 2012 **John Fredrick Oberlin Scholar**, *Oberlin College*, Oberlin, OH.

Publications

Journal Articles & Conference Proceedings

- **Knowledge Graphs in Practice: Characterizing their Users, Challenges, and Visualization Opportunities.** Harry Li, [Gabriel Appleby](#), Camelia Daniela Brumar, Remco Chang, and Ashley Suh. *IEEE Transactions on Visualization and Computer Graphics* 30.1 (2024)
- **Are Metrics Enough? Guidelines for Communicating and Visualizing Predictive Models to Subject Matter Experts.** Ashley Suh, [Gabriel Appleby](#), Erik W. Anderson, Luca Finelli, Remco Chang Remco, and Dylan Cashman. *IEEE Transactions on Visualization and Computer Graphics* (2023)
- **HyperNP: Interactive Visual Exploration of Multidimensional Projection Hyperparameters.** [Gabriel Appleby](#), Mateus Espadoto, Rui Chen, Sam Goree, Alexandru C. Telea, Erik W. Anderson, and Remco Chang. *Computer Graphics Forum* 41.3 (2022)

- **UnProjection: Leveraging Inverse-Projections for Visual Analytics of High-Dimensional Data.** Mateus Espadoto, [Gabriel Appleby](#), Ashley Suh, Dylan Cashman, Mingwei Li, Carlos E Scheidegger, Erik W. Anderson, Remco Chang, and Alexandru C. Telea. *IEEE Transactions on Visualization and Computer Graphics* (2021)
- **Efficient Discovery of Visible Light-Activated Azoarene Photoswitches with Long Half-Lives Using Active Search.** Fatemah Mukadum, Quan Nguyen, Daniel M. Adrion, [Gabriel Appleby](#), Rui Chen, Haley Dang, Remco Chang, Roman Garnett, and Steven A. Lopez. *Journal of Chemical Information and Modeling* 61.11 (Nov. 2021)
- **Kriging Convolutional Networks.** [Gabriel Appleby](#), Linfeng Liu, and Li-Ping Liu. *Proceedings of the AAAI Conference on Artificial Intelligence* 34.04 (Apr. 2020)

Pre-Prints & In-Submission

- **Attention is All They Need: Exploring the Media Archaeology of the Computer Vision Research Paper.** Samuel Goree, [Gabriel Appleby](#), David Crandall, and Norman Su. (2022) [Under revision at CSCW 2023]
- **RekomGNN: Visualizing, Contextualizing and Evaluating Graph Neural Networks Recommendations.** Camelia D. Brumar, [Gabriel Appleby](#), Teddy Matinde, Lara Thompson, and Anamaria Crisan. (2023) [In preparation]
- **DimBridge: Bridging Projection and Data Spaces with Predicate Logic.** Brian Montabault, [Gabriel Appleby](#), Jen Rogers, Camelia D. Brumar, Matthew Berger Mingwei Li, and Remco Chang. (2023) [In preparation]
- **Beyond Point Solutions: Formalizing Problem and Design Spaces for Visualization.** [Gabriel Appleby](#), Camelia D. Brumar, Ashley Suh, Brian Montabault, Jen Rogers, and Remco Chang. (2023) [In preparation]

Workshop Papers

- **Communicating Performance of Regression Models Using Visualization in Pharmacovigilance.** Ashley Suh and [Gabriel Appleby](#) and Erik W Anderson and Luca Finelli and Dylan Cashman. *IEEE Workshop on Visual Analytics in Healthcare (VAHC)* (2021)

Professional Appointments

- 2020–Present **Graduate Research Assistant**, *Tufts University*, Medford, MA.
- Summer 2023 **Graduate Intern**, *NREL Data Analysis and Visualization Group*, Golden, CO., Supervisor: Kristi Potter
- Spring 2021 **Co-Instructor**, *Tufts University*, Medford, MA.
- 2018–2020 **Graduate Teaching Assistant**, *Tufts University*, Medford, MA.
- Summer 2021 **Graduate Intern**, *Novartis AI Innovation Center*, Medford, MA., Supervisor: Erik W. Anderson
- 2016–2018 **Software Engineer**, *Boeing*, Fairfax, VA.
- Summer 2015 **Research Assistant**, *Oberlin College*, Oberlin, OH.
- Fall 2015 **Teaching Assistant**, *Oberlin College*, Oberlin, OH.

Talks

- 2023 **Bard College**, *Annandale-on-Hudson, NY*
Bridging the Gap Between Data and Practioner

- 2022 **EuroVis 2022**, *Rome, Italy*
HyperNP: Interactive Visual Exploration of Multidimensional Projection Hyperparameters
- 2021 **Tufts University**, *Medford, MA*
Towards Explainable, Interactive, and Scalable Projection Techniques
- 2016 **Oberlin College**, *Oberlin, OH*
Modeling and High Performance Computing; an MPI Expansion of Nova
- Oberlin College**, *Oberlin, OH*
The Effect of District Size on Student Performance, a Story from Illinois

Teaching

- Spring 2021 **COMP 150: Visual Analytics**, *Tufts University, Medford, MA*.
Co-Instructor with Prof. Remco Chang
- Spring 2020 **COMP 136: Statistical Pattern Recognition**, *Tufts University, Medford, MA*.
Graduate Teaching Assistant with Prof. Mike Hughes
- Fall 2019 **COMP 40: Machine Structure & Assembly**, *Tufts University, Medford, MA*.
Graduate Teaching Assistant with Profs. Megan Monroe & Richard Townsend
- Spring 2019 **COMP 15: Data structures**, *Tufts University, Medford, MA*.
Graduate Teaching Assistant with Prof. Matias Korman
- Fall 2018 **COMP 11: Introduction to Computer Science**, *Tufts University, Medford, MA*.
Graduate Teaching Assistant with Profs. Sam Guyer & Mark Sheldon
- Fall 2015 **CS 241: Systems Programming**, *Oberlin College, Oberlin, OH*.
Teaching Assistant with Prof. Roberto Hoyle

Professional Memberships

IEEE Computer Society

ACM (Association for Computing Machinery)

Eurographics