

Andrew McNutt

Professor in HCI & Visualization

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andrew.mcnutt@utah.edu

mcnutt.in

Education

University of Chicago

Ph.D., Computer Science (*Advisor Ravi Chugh*)

Masters of Science, Computer Science (*Advisor Gordon Kindlmann*)

Chicago, IL

2017 to 2023

2017 to 2019

Reed College

Bachelor of Arts, Physics (*Advisor Nelia Mann*)

Portland, OR

2010 to 2014

Professional & Research Experience

2024 to	University of Utah , <i>Assistant Professor</i>
2023 to 2024	University of Washington , <i>Post Doctoral Scholar</i> <i>Supervised by Jeffrey Heer and Leilani Battle</i>
2022	Microsoft Research , <i>Intern</i> <i>Supervised by Chenglong Wang, Rob DeLine, and Steven M. Drucker</i>
2019	Tableau Research , <i>Intern (Visual Analytics)</i> <i>Supervised by Michael Correll</i>
2015 to 2017	Uber , <i>Data Visualization Engineer II</i>
2014 to 2015	Collaborative Drug Discovery , <i>Scientific Visualization Developer</i>

Funding

2024	CISE Core Medium IIS (Utah: \$400k / Full \$1.2M) NSF
2023	Postdoc Research Award (~\$7,000) University of Washington
2022	Doctoral Colloquium Fellowship (~\$4,000). IEEE VIS.
2021	Graduate Council Research Fund (\$400). UChicago Grad.
2020	Graduate Council Travel Fund (\$400). UChicago Grad.

Awards

2025	Best Paper Honorable Mention. ACM SIGCHI for Slowness, Politics, and Joy (CHI25)
2023	Siebel Scholars Class of 2023 (\$35,000). Siebel.
2022	Long List in the Business Intelligence Category. Information is Beautiful Awards.
2021	Best Paper Honorable Mention. EuroVis. What are Table Cartograms Good for Anyway? (EuroVis21)
2020	Best Poster Honorable Mention. IEEE VIS. for A Minimally Constrained Optimization Algorithm for Table Cartograms (VIS20) Best Paper Honorable Mention. ACM SIGCHI for Surfacing Visualization Mirages (CHI20)
2019	Best Poster in Visualization (~\$200). MindBytes Research Symposium. Long List for Visual Analytics and Unusual Categories. Information is Beautiful Awards. Teaching Assistant Prize. University of Chicago, Department of Computer Science. 2nd Place for Best in Show. UChicago Art and Science Expo.
2019-	9 Special Recognitions for Outstanding Reviews. CHI, VIS, UIST
2014	Commendation of Academic Excellence. Reed College.

Underline indicates University of Utah student

- 2025 [Accessible Text Descriptions for UpSet Plots](#)
Andrew McNutt, Maggie K McCracken, Ishrat Jahan Eliza, Daniel Hajas, Jake Wagoner, Nate Lanza, Jack Wilburn, Sarah Creem-Regehr, Alexander Lex. EuroVIS. June 2025
- [Slowness, Politics, and Joy: Values That Guide Technology Choices in Creative Coding Classrooms](#) **Andrew McNutt**, Sam Cohen, Ravi Chugh. ACM CHI. May 2025 ★ Honorable Mention for Best Paper ★ (top 5%)
- 2024 [Mixing Linters with GUIs: A Color Palette Design Probe](#)
Andrew McNutt, Maureen Stone, Jeffrey Heer. IEEE VIS. October 2024
- [What Can Interactive Visualization do for Participatory Budgeting in Chicago?](#)
Alex Kale, Danni Liu, Maria Gabriela Ayala, Harper Schwab, **Andrew McNutt**. IEEE VIS. October 2024
- [Considering Visualization Example Galleries](#)
Junran Yang, **Andrew McNutt**, Leilani Battle. IEEE VL/HCC. September 2024
- [How Do Data Analysts Respond to AI Assistance? A Wizard-of-Oz Study](#)
Ken Gu, Madeleine Grunde-McLaughlin, **Andrew McNutt**, Jeffrey Heer, Tim Althoff. ACM CHI. May 2024
- 2023 [Projectional Editors for JSON DSLs](#)
Andrew McNutt, Ravi Chugh. IEEE VL/HCC. October 2023
- [Metrics-Based Evaluation and Comparison of Visualization Notations](#)
Nicolas Kruchten, **Andrew McNutt**, Michael McGuffin. IEEE VIS. October 2023
- [On the Design of AI-powered Code Assistants for Notebooks](#)
Andrew McNutt, Chenglong Wang, Rob DeLine, Steven M. Drucker. ACM CHI. April 2023
- [A Study of Editor Features in a Creative Coding Classroom](#)
Andrew McNutt, Anton Outkine, Ravi Chugh. ACM CHI. April 2023
- [Doom or Deliciousness: Challenges and Opportunities for Visualization in the Age of Generative Models.](#) Victor Schetinger, Sara Di Bartolomeo, Mennatallah El-Assady, **Andrew McNutt**, Matthias Miller, João Paulo Apolinário Passos, Jane L. Adams. EuroVIS 2023.
- 2022 [No Grammar to Rule Them All: A Survey of JSON-style DSLs for Visualization](#)
Andrew McNutt. IEEE VIS. October 2022.
- [Goethe and Candolle: National Forms of Scientific Writing?](#)
Agatha Kim, **Andrew McNutt**. Theory in Biosciences. August 2022.
- [Explaining Why: How Instructions and User Interfaces Impact Annotator Rationales When Labeling Text Data.](#) Jamar L. Sullivan Jr., Will Brackenbury, Kevin Bryson, Kwam Byll, **Andrew McNutt**, Yuxin Chen, Michael L. Littman, Chenhao Tan, Blase Ur. NAACL. July 2022.

2021 [KondoCloud: Improving Information Management in Cloud Storage via Recommendations Based on File Similarity](#). Will Brackenbury, **Andrew McNutt**, Kyle Chard, Aaron Elmore, Blase Ur. ACM UIST. October 2021.

[On The Potential of Zines as a Medium for Visualization](#)
Andrew McNutt. IEEE VIS Short Papers. October 2021.

[What are Table Cartograms Good for Anyway? An Algebraic Analysis](#)
Andrew McNutt. EuroVis. June 2021. ★ Honorable Mention for Best Paper ★ (juried — top 2)

[Integrated Visualization Editing via Parameterized Declarative Templates](#)
Andrew McNutt, Ravi Chugh. ACM CHI. May 2021.

2020 [Surfacing Visualization Mirages](#)
Andrew McNutt, Gordon Kindlmann, Michael Correll. ACM CHI. April 2020. ★ Honorable Mention for Best Paper ★ (top 5%)

2015 [The Schrodinger-Newton System with Self-field Coupling](#)
Joel Franklin, Youdan Guo, **Andrew McNutt**, Allison Morgan. J. Classical & Quantum Gravity. 2015.

[Open source Bayesian models. 1. Application to ADME/Tox and Drug Discovery Datasets](#)
Alex M. Clark, Krishna Dole, Anna Coulon-Spektor, **Andrew McNutt**, George Grass, Joel S. Freundlich, Robert C. Reynolds, Sean Ekins. Journal of Chemical Information and Modeling. 2015.

Book Chapters

2018 [Data Mining and Computational Modeling of High-Throughput Screening Datasets](#)
Sean Ekins, Alex M Clark, Krishna Dole, Kellan Gregory, **Andrew McNutt**, Anna Coulon Spektor, Charlie Weatherall, Nadia K Litterman, Barry A Bunin. Reporter Gene Assays. 2018.

Patents

2023 [Surfacing visualization mirages](#)
Michael Correll, **Andrew McNutt**. US20210081874A1. September 2023.

Theses

2023 [Understanding and Enhancing JSON-based DSLs for Visualization](#)
Advised by Ravi Chugh. Ph.D. Thesis. University of Chicago. August 2023.

2019 [Design and Analysis of Table Cartograms: Multipurpose Tabular Area-Encoding Displays](#)
Advised by Gordon Kindlmann. Master of Science Thesis. University of Chicago. December 2019.

2014 [Nonequivalent Lagrangian Mechanics](#)
Advised by Nelia Mann. Bachelor of Arts Thesis. Reed College. June 2014.

Peer Reviewed Workshop Papers, Extended Abstracts, Demonstrations, and Posters

- 2025 **Buckaroo: A Direct Manipulation Visual Data Wrangler**
Annabelle Warner, **Andrew McNutt**, Paul Rosen, El Kindi Rezig. VLDB Demo. September 2025. Demo
- ReVISitPy: Python Bindings for the reVISit Study Framework**
Hilson Shrestha, Jack Wilburn, Brian Bollen, **Andrew McNutt**, Alexander Lex, Lane Harrison. EuroVIS Posters. June 2025. Poster.
- Linting is People! Exploring the Potential of Human Computation as a Sociotechnical Linter of Data Visualizations**
Anamaria Crisan, **Andrew McNutt**. alt.CHI. April 2025. Extended Abstract.
- 2023 **Only YOU Can Make IEEE VIS Environmentally Sustainable**
Elsie Lee-Robbins, **Andrew McNutt**. alt.vis. October 2023. Workshop Paper.
- 2021 **Visualization for Villainy**
Andrew McNutt, Lilian Huang, Kathryn Koenig. alt.vis. October 2021. Workshop Paper.
- 2020 **Supporting Expert Close Analysis of Historical Scientific Writings: A Case Study for Near-by Reading** **Andrew McNutt**, Agatha Kim, Sergio Elahi, Kazutaka Takahashi. IEEE VIS Visualization for the Digital Humanities Workshop. October 2020. Workshop Paper.
- A Minimally Constrained Optimization Algorithm for Table Cartograms**
Andrew McNutt, Gordon Kindlmann. InfoVis Posters. October 2020. Poster. ★ Honorable Mention for Best Poster ★ (juried — top 3)
- Divining Insights: Visual Analytics Through Cartomancy**
Andrew McNutt, Anamaria Crisan, Michael Correll. alt.CHI. April 2020. Extended Abstract.
- 2019 **Textual Analysis & Comparison National Forms of Scientific Texts: Goethe + de Candolle**
Agatha Kim, **Andrew McNutt**, S. Sergio Elahi, Kazutaka Takahashi, Robert J Richards. MindBytes Research Symposium. November 2019. Poster. ★ Best Poster in Visualization ★
- Improving the Scalability of Interactive Visualization Systems for Exploring Threaded Conversations.** **Andrew McNutt**, Gordon Kindlmann. EuroVis Posters. June 2019. Poster.
- 2018 **Linting for Visualization: Towards a Practical Automated Visualization Guidance System**
Andrew McNutt, Gordon Kindlmann. IEEE VIS VisGuides Workshop. October 2018. Workshop Paper.

Panels

- 2024 Visualization for Villainy. Data Visualization Society Book Club. December. *Panelists:* **Andrew McNutt**. *Organizers:* Elsie Lee-Robbins, Daria Koshkina
- VIS Conference Futures: Community Opinions on Recent Experiences, Challenges, and Opportunities for Hybrid Event Formats. IEEE VIS Panel. October. *Organizers:* Matthew Brehmer, Narges Mahyar. *Panelists:* Tim Dwyer, John Guerra-Gomez, Petra Isenberg, Takayuki Itoh, Elsie Lee-Robbins, **Andrew McNutt**.
- VisInPractice: How do we close the gap between data visualization research and practitioners. IEEE VIS Panel. October. *Organizers:* Ayan Biswas, Arjun Srinivasan *Panelists:* Alberto Cairo, Cindy Xiong, **Andrew McNutt**.

Tutorials

- 2025 Running Online User Studies with the reVISit Framework. IEEE VIS. October. Jack Wilburn, Hilson Shrestha, Zach Cutler, Yiren Ding, Tingying He, **Andrew McNutt**, Lane Harrison, Alexander Lex.
- Running Online User Studies with the reVISit Framework. EuroVIS. June. Jack Wilburn, Hilson Shrestha, Zach Cutler, Yiren Ding, Tingying He, **Andrew McNutt**, Lane Harrison, Alexander Lex.

Advising / Mentoring

PhD

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| 2024- | Shiyi He | University of Utah |
| 2025- | Zach Cutler (Co-advised with Alexander Lex) | University of Utah |

MS

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| 2025- | Hima Mynampaty | University of Utah |
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Undergraduates

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| 2024 | Ann Baturyski | University of Washington |
| 2024 | Shaoming (Ramses) Lee | University of Washington |

Service

Programming Committee

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| EuroVis | Full Papers (25), Short Papers (25) |
| VIS | Full Papers (24, 25), alt.vis (22, 23), VDS (24), VisGuides (22), VISions (24) |
| Info+ | Full Submissions (25) |

Organizing Committee

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| 4 Corners VIS | Standalone Regional Meeting | 2025 |
| VISIONs | IEEE VIS workshop | 2024 |
| Info+ | Standalone Conference | 2023 |
| alt.vis | IEEE VIS workshop | 2022, 23, 25 |

Awards Committee

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| EuroVis | Best Short Paper (25) |
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External Reviewing

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| CHI | Full Papers (21 ★ , 22 ★ ² , 23 ★ ³ , 24 ★, 25), alt.chi (20, 25), Late-Breaking Work (22) |
| EuroVis | Full Papers (23) |
| UIST | Full Papers (21 ★) |
| VIS | Full Papers (20, 21, 22, 23 ★), Short Papers (20, 21), alt.vis (21) |
| Journal | CG&A (23, 24), JOVI (23, 24), TVCG(22, 24) |

★ - Special Recognition for Outstanding Review

Professional Service

2025	CG&A Special Issue on Critical Vis x2	Guest Editor
2023-	Open Grad Positions in Visualization	Maintainer
2024-	Journal of Visualization and Interaction	Associate Editor
2024	IEEE VIS Satellite	Organizer
2021	EuroVis	Student Volunteer
2019	Open Access VIS / EuroVis	Contributor / Organizer

Internal Service

2024-	Curriculum committee	Member
2024-	Admissions committee	Member
2024	Grad Open House (Nov. 15th)	Speaker
2024	Graduate Student Mentoring (Sept 16)	Panelist
2024	Orientation Week	Speaker

Doctoral Thesis Committees

2025	Connor Scully-Allison (Adv. Katherine Isaacs)	University of Utah
2025*	Md Dilshadur Rahman (Adv. Paul Rosen)	University of Utah
2025*	Rifat Ara Proma (Adv. Paul Rosen)	University of Utah
2026*	Aashish Panta (Adv. Valerio Pascucci)	University of Utah
2026*	Xinyuan Yan (Adv. Bei Wang)	University of Utah

*Expected

Teaching

Instructor

2025 Fall	Programming for All 1	COMP1010	University of Utah
Spring	Critical HCI and Visualization	CS6967	University of Utah (7)
2024 Fall	Programming for All 1	COMP1010	University of Utah (105)
2021 Winter	Data Visualization For Public Policy	CAPP 30239	UChicago (29 students)
2020 Spring	Data Visualization	CMSC 23900	UChicago (55 students)
Winter	Data Visualization For Public Policy	CAPP 30239	UChicago (24 students)
2016-2017	Ubersersity		Uber
2015-2017	Visualization Eng-ucation		Uber

Teaching Assistant

2023 Spring	Data Visualization and Communication	DATA 22700	UChicago
2022 Winter	Creative Coding	CMSC 11111	UChicago
2021 Summer	Introduction to Creative Coding	CMSC 19111	Pre-College Immersion (HS)
Summer	Art with Science: Creative Coding		Collegiate Scholars Program (HS)
Spring	Creative Coding	CMSC 11111	UChicago
2019 Spring	Data Visualization	CMSC 23900	UChicago
Winter	Data Visualization For Public Policy	CAPP 30239	UChicago
2018 Fall	Computer Science with Applications 1	CAPP 30121	UChicago
Spring	Data Visualization	CMSC 23900	UChicago
Winter	Introduction to Computer Science 1	CMSC 15100	UChicago
2017 Fall	Computer Science with Applications 1	CMSC 12100	UChicago
2012 Fall	General Physics I	Physics 101	Reed College

Professional Development

2023	College Teaching Certificate	UChicago Center for Teaching
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Invited Talks

- 2025 **Linters as Sociotechnical Systems**
King's College London, June 2024, London, England
giCentre, June 2024, London, England
University of Bristol, June 2024, Bristol, England
- Two talks about JSON DSLs for visualization**
University of Utah, Salt Lake City, Utah
- 2024 **Safer Data Interfaces with Linters**
Tableau Research, June, 2024, Seattle, Washington.
- 2023 **JSON-based DSLs and the Future of End User Programming**
Microsoft Research, November, 2023, Cambridge, England.
- Projectional Editors for JSON-based DSLs**
Vega Conf, September, 2023, Seattle, Washington.
- Safer Interfaces for Data Visualization**
University of California Berkeley, May, 2023, Berkeley, California.
Microsoft Research, April, 2023, Cambridge, England (Virtual).
Roux Institute, March, 2023, Portland, Maine.
University of Utah, February, 2023, Salt Lake City, Utah.
- 2022 **Understanding & Enhancing JSON-based DSL Interfaces for Visualization.**
Shandong University, November 15, 2022, Qingdao, China. (Virtual)
IEEE VIS Doctoral Colloquium, October 15, 2022, Oklahoma City, Oklahoma.
- How do we know what a visualization is good for? Algebraic Approaches.**
RAMPVIS, August 5, 2021, Oxford, England. (Virtual)
- What are Table Cartograms Good for Anyway? An Algebraic Analysis.**
City University London, May 18, 2021, London, England. (Virtual)
- Integrated Visualization Editing via Parameterized Declarative Templates.**
University of California: Berkeley, November, 2021, Berkeley, California (Virtual)
CHIChicago Symposium, May, 2021, Chicago, Illinois (Virtual)
- 2018 **Design Patterns For Data Visualization in React.**
React Chicago, August 29, 2018, Chicago, Illinois.