

# Andrew McNutt

Professor in HCI & Visualization

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[andrew.mcnutt@utah.edu](mailto:andrew.mcnutt@utah.edu)

[mcnutt.in](http://mcnutt.in)

## Education

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### 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

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

## Funding

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2024	<b>CISE Core Medium IIS (Utah: \$400k / Full \$1.2M) NSF</b>
2023	<b>Postdoc Research Award (~\$7,000) University of Washington</b>
2022	<b>Siebel Scholars Class of 2023 (\$35,000). Siebel.</b> <b>Doctoral Colloquium Fellowship (~\$4,000). IEEE VIS.</b>
2021	<b>Graduate Council Research Fund (\$400). UChicago Grad.</b>
2020	<b>Graduate Council Travel Fund (\$400). UChicago Grad.</b>

## Awards

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

- 2025 [Slowness, Politics, and Joy: Values That Guide Technology Choices in Creative Coding Classrooms](#)  
Andrew McNutt, Sam Cohen, Ravi Chugh. ACM CHI. May 2025
- 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

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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.

## Theses

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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.

## Patents

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

## Panels

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- 2024 Visualization for Villainy. Data Visualization Society Book Club. *Panelists:* **Andrew McNutt**. *Organizers:* Elsie Lee-Robbins, Daria Koshkina. December
- 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**.

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

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- 2025 **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. Poster. June 2019.
- 2018 **Linting for Visualization: Towards a Practical Automated Visualization Guidance System**  
**Andrew McNutt**, Gordon Kindlmann. IEEE VIS VisGuides Workshop. October 2018. Workshop Paper.

## Advising / Mentoring

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### PhD

2024-	Shiyi He	University of Utah
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### MS

2025-	Hima Mynampaty	University of Utah
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### Undergraduates

2024	Ann Baturytski	University of Washington
2024	Shaoming (Ramses) Lee	University of Washington

## Service

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### Programming Committee

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

### Organizing Committee

4 Corners VIS	Standalone Regional Meeting	2025
<a href="#">VISIONs</a>	IEEE VIS workshop	2024
<a href="#">Info+</a>	Standalone Conference	2023
<a href="#">alt.vis</a>	IEEE VIS workshop	2022, 2023

### External Reviewing

CHI	Full Papers (21 ★ , 22 ★ <sup>2</sup> , 23 ★ <sup>3</sup> , 24 ★, 25), alt.chi (20), 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	<b>CG&amp;A Special issue on Critical Vis</b>	Guest Editor
2023-	<b><a href="#">Open Grad Positions in Visualization</a></b>	Maintainer
2024-	<b>Journal of Visualization and Interaction</b>	Associate Editor
2024	<b><a href="#">IEEE VIS Satellite</a></b>	Organizer
2021	<b>EuroVis</b>	Student Volunteer
2019	<b>Open Access VIS / EuroVis</b>	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

Expected 2025	Connor Scully-Allison	University of Utah
Expected 2025	Md Dilshadur Rahman	University of Utah
Expected 2025	Rifat Ara Proma	University of Utah

## Teaching

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### Instructor

2025 Spring	<a href="#">Critical HCI and Visualization</a>	CS6967	University of Utah (8)
2024 Fall	Programming for All 1	COMP1010	University of Utah (105)
2021 Winter	<a href="#">Data Visualization For Public Policy</a>	CAPP 30239	UChicago (29 students)
2020 Spring	Data Visualization	CMSC 23900	UChicago (55 students)
Winter	<a href="#">Data Visualization For Public Policy</a>	CAPP 30239	UChicago (24 students)
2016-2017	Ubersiversity		Uber
2015-2017	Visualization Eng-ucation		Uber

### Teaching Assistant

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

### Professional Development

2023	College Teaching Certificate	<a href="#">UChicago Center for Teaching</a>
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### Invited Talks

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- 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)  
CHIcago Symposium, May, 2021, Chicago, Illinois (Virtual)
- 2018 **Design Patterns For Data Visualization in React.**  
React Chicago, August 29, 2018, Chicago, Illinois.