


Jen Rogers

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RESEARCH FOCUS My research is an articulation between HCI and Visualization. My current work focuses on designing and developing tools to make human-centered processes more transparent and traceable, from human-in-the-loop ML to design studies.



EDUCATION **PhD Human Centered Computing**
2017-2022 Scientific Computing and Imaging Institute, University of Utah
2015-2016 **MSc Medical Visualization and Human Anatomy**
Glasgow School of Art & University of Glasgow, With Distinction
2010-2014 **BFA Graphic Design**
Montana State University, Highest Honors


SKILLS **Skill focus:** Visualization. Design and development of web-based tools.
Qualitative research: contextual and semi structured interviews, open-coding
Web development: JavaScript, TypeScript, D3.js, React, Flask, Node.js
Programming: Python, (some) Java
Design: Adobe Illustrator, Photoshop, Figma

PROJECTS **Trrracer: Tool for Recording a Design-Oriented Research Process**
2021-current In collaboration with researcher from Univeristy of Edinburgh, School of Information Science, to facilitate transparency and traceability
 <https://github.com/jrogerthat/trrracer>
Skills applied: Python (NLTK, Gensim, Flask), TypeScript, React, Electron

2022 **AutoML Trace: Interactive Sketch**
In collaboration with Tableau Research, AutoML Trace is an interactive sketch showing both the context and temporality of human-ML/AI collaboration in data work
Skills applied: requirements gathering, mock-ups (Illustrator), web development (JavaScript, D3.js), Flask

2020 -2021 **Web-based annotation tool for coronavirus cell-entry animations**
In collaboration with the Animation Lab, School of Medicine, University of Utah and online community of structural biologists, simulators, and molecular animators.
 https://github.com/visdesignlab/coronavirus_annotation  animationlab.utah.edu/cova
Skills applied: requirements gathering, semi-structured interviews, mock-ups (Illustrator), web development (JavaScript, D3.js, HTML5, CSS), Python for image data processing

2019 **Trevo: Visual tool to identify patterns in phylogenetic tree data**
Part of the NSF funded Multinet Graph Project, in collaboration with the University of Idaho and Kitware.
 <https://vdl.sci.utah.edu/Trevo/>  <https://github.com/visdesignlab/Trevo>
Skills applied: requirements gathering, semi-structured and contextual interviews, mock-ups (Illustrator), web development (JavaScript, D3.js, HTML5, CSS), development of interactive audit trail to trace back design study insights to underlying artifacts.

2018 **Composer: Visual cohort comparison tool**
In collaboration with the University of Utah Orthopedic Center.
 <https://github.com/visdesignlab/Composer>
Skills applied: requirements gathering, semi-structured interviews, mock-ups (Illustrator), web development (TypeScript, D3.js, HTML5, CSS), Python for data processing

SELECTED EXPERIENCE **Postdoctoral Researcher, Visual Analytics Lab, Tufts**
2022 - current Research involving high dimensional data visualization and percieved control of automated systems.

2017 - 2022 **Research Assistant, SCI Institute, University of Utah**
Research in web-based visual applications tailored for biological data at the Scientific Computing and Imaging Institute.

2021 **Intern, Tableau Research**
Worked on traceability for autoML. Devolped taxonomy to characterize artifacts emergent from this process and prototype to visualize the attributes, dependencies, and histories of these captured artifacts.

- SELECTED EXPERIENCE**
- 2019 **Visiting Researcher, Harmon Lab, University of Idaho**
Worked closely with researchers in comparative evolutionary biology to design and develop a tool for visual analysis of phylogenetic tree data.
- 2016 **Lab at the Loft, Glasgow School of Art / Digital Health and Care Institute,**
Experimental hack-a-thon style design workshop to generate ideas for future projects that improve human interaction with assistive healthcare systems in the home.
- OUTREACH**
- 2021-current **Publicity Chair for Biovis**
Assist in outreach for Biovis events at IEEE VIS and ISMB
- 2021-2022 **Publicity Chair for VDS, IEEE VIS 2020**
Assist in the outreach for VDS events at IEEE VIS and KDD
- 2020 **Publicity and Local Chair BELIV Workshop, IEEE VIS 2020**
Assist in the outreach and organization of BELIV workshop at VIS
- TEACHING + MENTORSHIP**
- 2018, 2019 **Teaching Mentor, University of Utah,**
Visualization for Data Science (CS 6591). Organized and ran class labs. Designed and built visualization homework projects to teach Javascript and D3.
- 2016-2017 **Ambassador for Urban Uprising Foundation, Glasgow, UK**
Mentor and coach for at risk youth from Ayrshire, UK to develop their foundational skills in climbing and progress toward their NIBAS certification. Organized and participated in sea-stack expedition in Northern Scotland to raise money and awareness for the charity.
- ★ When I am not coding, I am a climbing coach at the local climbing gym
- PEER-REVIEWED PUBLICATIONS**
- 2023 Rogers, J., Crisan, A.
Tracing and Visualizing Human-ML/AI Collaborative Processes through Artifacts of Data Work
SIGCHI, ACM
- 2020 Rogers, J., Patton, A. Harmon, L. Lex, A. Meyer, M
Insights From Experiments With Rigor in an EvoBio Design Study
IEEE Transactions on Visualization and Computer Graphics (InfoVis)
- 2019 Rogers, J., Spina, N., Neese, A., Hess, R., Brodke, D. and Lex, A., 2019.
Composer: Visual Cohort Analysis of Patient Outcomes.
Applied clinical informatics, 10(02), pp.278-285.
- 2018 Rogers, J., Spina, N., Neese, A., Hess, R., Brodke, D. and Lex, A., 2018.
Composer: Visual Cohort Analysis of Patient Outcomes
Workshop on Visual Analytics in Healthcare at AMIA (VAHC 2018).
- SELECTED TALKS + PRESENTATIONS**
- 2021 **Speaker, Invited Highlight Talk**
BioVis@ISMB 2021
Presented work on tRRRace and traceability that came from work "Insights and Experiments with Rigor in an EvoBio Design Study".
- 2018 **Presenter, Workshop for VAHC 2018, San Francisco, CA, United States**
VAHC 2018: Visual Analytics in Healthcare
Presented work on "Composer" interactive cohort analysis tool developed in collaboration with the Orthopaedic Research Center, University of Utah
- 2018 **Poster Presenter IEEE VIS 2018, Berlin, Germany**
Presented poster for interactive cohort analysis tool developed in collaboration with the Orthopaedic Research Center, University of Utah
- 2017 **Poster Presenter 2017 SIGGRAPH, Los Angeles, California**
Presented poster for "Constellations of Movement", an interactive iPad application visualizing research in motor imagery decoding for the Center for Cognitive Neuroscience, University of Glasgow.
- 2017 **Poster Presenter and Student Grant Recipient, 2017 IS&T**
International Symposium on Electronic Imaging, Burlingame, California
Invited to present interactive poster and speak on project developing interactive application to visualize research in motor imagery decoding.
- 2016 **Invited Speaker Duke of Edinburgh Award Ceremony, Glasgow, UK**
Invited to speak to the attending body of the Duke of Edinburgh award ceremony on our climbing expedition to raise money and awareness for Urban Uprising Foundation.