Jen Rogers

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https://jenrogers.dev
github.com/jrogerthat

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 / Exploratory Science Center, Merck
2022 – current Research involving high dimensional data visualization and percieved control

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. Devoloped 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

2023 **Organizing Committee Member NSF Workshop for High-Dimensional Data Visualization,**
Organized a 45 participant workshop, from academia, national labs, and industry

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

Rogers, J., Crisan, A.
2023 **Tracing and Visualizing Human-ML/AI Collaborative Processes through Artifacts of Data Work**
Honorable Mention at CHI 2023, SIGCHI, ACM

2022 Liu, H., Riggi, M., Rogers, J., Meyer, M., Iwasa, JH, 2022.
A new tool for annotating scientific animations and supporting scientific dialogue
PLoS biology 20(8).

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.

SELECTED TALKS + PRESENTATIONS

2021 **Speaker, Invited Highlight Talk**
BioVis@ISMB 2021
Presented work on tRRRace and traceabiility 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.