Adam Rule

Human-Computer Interaction Researcher
with The Design Lab @ UC San Diego

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Summary

I am a PhD trained **human-computer interaction researcher** and industry trained **user experience researcher** specializing in the design of data-driven software. My academic experience taught me to think deeply, explore widely, and communicate clearly while my industry experience taught me to add value, control scope, and meet deadlines.

I have an extensive qualitative and quantitative research toolkit and build custom software to collect and visualize data from people interacting with complex systems over time, both in the lab and in the wild.

My PhD focused on how people use computational notebooks and electronic medical records to document and communicate work involving large amounts of data. I also have prior experience visualizing medical equipment inventories and testing online shopping interfaces

Skills

Qualitative Methods	Contextual Inquiry, Usability Testing, Eye-Tracking, Field Studies, Task Analysis, Heuristic Evaluation, Personas
Prototyping & Design	Axure, Sketch
Software Development	Python, JavaScript, HTML, CSS
Analysis & Visualization	Python, R, SQL, D3

Education

2018 **University of California at San Diego**
PhD Cognitive Science
Thesis: Design and Use of Computational Notebooks

2013 **University of Washington**
MS Human Centered Design & Engineering

2011 **University of Illinois at Champaign-Urbana**
BS Industrial Engineering – Highest Honors

Publications

Honorable Mention (top 5%)

Rule A, Tabard A, Hollan J. (2018) Exploration and Explanation in Computational Notebooks. Proceedings of ACM international conference on Human Factors in Computing Systems (CHI '18)

Rule A, Tabard A, Hollan J. (2017) Using Visual Histories to Reconstruct the Mental Context of Suspended Activities. Human Computer Interaction.

Rule A, Rick S, Chiu M, et al. (2015) Validating Free-text Order Entry for a Note-centric EHR. In Proceedings of the 2015 Annual Symposium of the American Medical Informatics Association.

Rule A, Tabard A, Boyd K and Hollan J. (2015) Restoring the Context of Interrupted Work with Desktop Thumbnails. Proceedings of the 2015 Annual Meeting of the Cognitive Science Society.

Honorable Mention (top 5%) — Rule A, Forlizzi J. (2012) Designing interfaces for multi-user, multi-robot systems. Proceedings of the seventh Annual ACM/IEEE international conference on Human-Robot Interaction. 97-104

Experience

2013 - 2018 — **UC San Diego**
Graduate Student Researcher – Employed a range of qualitative and quantitative methods to study the design and use of data-driven software. The three projects included in my dissertation were:

1. scraping and analyzing 1 million Jupyter Notebooks from GitHub, interviewing experienced data analysts about their notebook use
2. developing a Jupyter Notebook extension to assist with notebook cleaning, conducting a usability test with data science students and a field study with experts using the extension for their everyday work
3. prototyping a method for placing free-text medication orders within a clinical note and conducting a usability study with clinicians

Summer 2012 — **Amazon**
Design Intern – Conducted usability tests of shopping interfaces with customers. Tested information architecture with remote online study.

Summer 2012 — **PATH**
Technology Solutions Intern – Heuristic evaluation of medical equipment inventory management tool for resource-constrained environments. Created interactive data visualizations for the same inventory tool.

Summer 2011 — **Carnegie Mellon University**
User Research Intern – Conducted contextual inquiries with controllers of multi-robot teams. Crafted design guidelines for interfaces to control robot teams.

Summer 2010 — **Intel Research**
User Research Intern – Conducted interviews and observations to study a young man's experience with quadriplegia and prototyped interaction design of an assistive home robot.

Recognition

2014-17 — National Library of Medicine Training Grant – 3 years tuition & stipend
2012 — Microsoft Design Expo – Best Presentation
2011 — University of Illinois Bronze Tablet – Top 3% GPA
2010 — IESE Departmental Awards – Outstanding IE Junior

Teaching

Spring 2018 — Teaching Assistant – COGS 10 – Cognitive Consequences of Tech
Winter 2017 — Teaching Assistant – DSGN 1 – Design of Everyday Things
Winter 2016 — Teaching Assistant – COGS 120 – HCI Design - Teaching Award
Winter 2015 — Teaching Assistant – COGS 102b – Cognitive Ethnography
Spring 2014 — Teaching Assistant – COGS 102c – Cognitive Design Studio

Mentoring

Undergraduate Thesis Advisor — Kendall Youngstrom – Now at Google
Ram Dixit – Now a MS student at UT Houston

Research Advisor — Karen Boyd – Now a PhD student at UMD
Regina Cheng – Now a PhD student at UW
Nathan Hassanzadeh