Alex Calderwood

alexcwd@ucsc.edu

EDUCATION

UC Santa Cruz - *Expected 2026*
> Ph.D. Student - Computational Media

Columbia University *Aug 2017 - Feb 2019*
> M.S. Computer Science - Natural Language Processing (NLP) track

Montana State University *Aug 2013 - May 2017*
> B.S. Computer Science (interdisciplinary track with minors – English & Math)

Recurse Center *July 2019 - Sept 2019*
> Self-driven coding retreat where I focused on building civic-media game *Regression*

National University of Ireland, Galway *July 2015 - Dec 2015*
> Study abroad (Literature and ML)

EMPLOYMENT

News Automation Engineer   June '19 – Present
- Worked closely with journalists and product teams, to build systems that author hundreds of stories based on various data streams. These dynamic text stories then publish on different wires with the byline "Bloomberg Automation"

Research Scholar, *Brown Institute for Media Innovation (Columbia University)*   Aug '18 – June '19
- Reported on various projects at the intersection of journalism & technology for the Brown Institute blog in my capacity as the Institute's Staff Writer.
- Authored an explorative user study on novelists' use of generative writing tools.
- Assisted in a handful of technical media projects, including data analysis for a "Treecorder" device that captured a tree's dilated experience of time, and an independent analysis of the US Census Bureau differential privacy codebase.
- Designed and led a workshop on intermediate web scraping for professional journalists.

Data Engineering Consultant, *ProductionPro Technologies*   May '17 – Aug '19
- Conducted research and development for an NLP-based iPad app to extract the scenes, characters, locations, and props from unstructured film and theater scripts to digitize production collaboration. Startup backed by Disney.

Teaching Assistant – AI, UI Design, *Columbia Department of Computer Science*   Aug '18 – May '19
- Assisted in curriculum design for a Mozilla-grant funded ethical CS curriculum initiative.
- Mentored students and graded homework.

Undergrad Teaching Assistant, *Montana State University*   Aug '16 – May '17
- Led lab sections for 'Introduction to Programming' and 'Programming with C'.

Researcher (NSF REU), *Rochester Institute of Technology*   May '16 – Aug '16
- Devised a method to apply machine learning-based computational linguistic analysis techniques to Reddit discussions of domestic violence. Presented the technique at the 2017 EACL conference in Valencia, Spain.

Software Development Intern, *Oracle, Inc*   May '15 – Jan '16
- Saved engineers' time by developing a tool to streamline code review. Automated app deployment via shell scripts.

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PUBLICATIONS, WORKSHOP PAPERS

Calderwood, A., Gero, K., Qiu, V., & Chilton, L. (2020). How Novelists Use Generative Language Models: An Exploratory User Study. *HAI-GEN Workshop at IUI 2020*.

Christensen, N., Bolton, E., Calderwood, A., & Drori, I. (2020). High Quality Real-Time Structured Debate Generation. *New York Academy of Sciences 2020 ML Symposium*.

Calderwood, A., Pruett, E., Ptucha, R., Homan, C., & Ovesdotter Alm, C. (2017). Understanding the Semantics of Narratives of Interpersonal Violence through Reader Annotations and Physiological Reactions. *Computational Semantics Beyond Events and Roles - Workshop EACL 2017*.

OTHER PUBLICATIONS

Calderwood, A., Riglin, E., & Vaidyanathan, S. (2018, July 20). How Americans Wound Up on Twitter's List of Russian Bots. Wired (Conde Nast)

TECHNICAL

- Graduate ML Coursework
  - Including: Deep Learning, Applied Machine Learning, Natural Language Processing, NLP in Context, Speech Recognition, Computational Journalism, AI, Applied Machine Learning
- Other Graduate Coursework
  - Including: Advanced Web Design, Network Security, Reporting, Writing about the Arts
- Proficient in
  - Python (Pytorch, Pandas, Scikit Learn, NLTK, Gensim, Spark)
  - Web (React, Flask, P5, Heroku, Javascript)
  - Misc (C++, C, Java, SQL, Docker, Google Cloud Services, AWS)