

C. Estelle Smith

Curriculum Vitae

Graduate Research Fellow
University of Minnesota, Twin Cities
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Research Statement

Advised by Prof. Haiyi Zhu, I am a third year Computer Science Ph.D. student in GroupLens Research, a social computing lab at the University of Minnesota. My core research explores socio-technical infrastructures that support scientific media creation and dissemination online. My goal is to design and build new tools and systems that shift our technological paradigm towards a higher degree of public engagement with science.

Education

UNIVERSITY OF MINNESOTA, Twin Cities, MN
Matriculated in Computer Science Ph.D. program, September 2016
Bachelor of Science, Neuroscience, *With Distinction*, 2015
Bachelor of Arts, English (Creative Writing), German Minor, *Summa Cum Laude*, 2010

IES ABROAD, Vienna, Austria
Full Year Study Abroad, 2008-09

Awards

GAANN Fellowship (2017)
Graduate Teaching Assistantship (2016, 2018)
Lifson/Johnson Memorial Teaching Award (2015)
Phi Beta Kappa Honor Society (2014)
Presidential Scholarship (2005)

Research Experience

UNIVERSITY OF MINNESOTA, GROUPLENS RESEARCH LAB, Minneapolis, MN
Ph.D. Researcher September 2016 to Present
My core research investigates opportunities for technological innovation in science communications using qualitative and quantitative methods. I led an interview study to understand the design space for new tools/systems to enhance scientific media production [1]. Ongoing work uses machine learning and natural language processing techniques to investigate science communication on Twitter. Analytical skills include interviews, surveys, big data (textual) [2].

UNIVERSITY OF MINNESOTA, MESCE NEUROSCIENCE LAB, Saint Paul, MN
Junior Scientist May 2014 to June 2015
I investigated sensory integration of nociceptive stimuli in the medicinal leech, *Hirudo medicinalis*, completing a Directed Research Project in Fall 2014 (Thesis: "Stimulation of Nociceptive Inputs Does Not Advance Recovery of Locomotor Behavior") and an Undergraduate Research Opportunity (UROP), Spring 2015 (Poster presentation: "The Crawl Towards Nerve Cord Recovery").

Selected Teaching Experiences

UNIVERSITY OF MINNESOTA COLLEGE OF SCIENCE AND ENGINEERING
Graduate Teaching Assistant, CSCI 5127W Fall 2016 and Fall 2018
"Human-Centered Design and Prototyping of Ubiquitous Computing Systems"
Students prototype embodied hardware solutions for the Student Design Competitions at the 2017 and 2019 CHI Conferences. I taught writing skills through in-class presentations, weekly office hours, intellectual guidance of data analyses and projects, and iterative feedback on extended abstract submissions.

Undergraduate Research Mentor, REU and UROP programs Fall 2016 to present
I routinely mentor and train younger students in the course of completing research. To date, I have trained 15 undergraduate and 3 high school students.

Undergraduate Teaching Assistant, CSCI 1133 Spring 2016
"Introduction to Computing and Programming Concepts"
I instructed labs in Python programming, held office hours, and assisted with grading.

UNIVERSITY OF MINNESOTA MEDICAL SCHOOL

Undergraduate Teaching Assistant, PHSL 3051 Fall 2014, Spring & Fall 2015
"Human Physiology"

I received the Lifson/Johnson Memorial Award for excellence in teaching for this class. I was specially chosen to lead weekly Q&A sessions; voluntary attendance ranged from 20-100 students. I was hired to revise and edit critical thinking exercises published in:

Anderson, L.C. & Keirstead, S.A. *Cells to Systems: Critical Thinking Exercises in Physiology, 3rd ed.* Dubuque: Kendall Hunt Publishing Company, 2015. Print.

TECHSPLOSION STEM ENRICHMENT PROGRAM, San Francisco, CA

Lead Instructor September to December 2012

I instructed after-school technology classes in Video Game Design, LEGO Robotics, Stop Motion Animation, and Near-Space Photography.

**Selected
Industry
Experiences**

UMN COLLEGE OF BIOLOGICAL SCIENCES (CBS), Saint Paul, MN

UMN BIOTECHNOLOGY INSTITUTE (BTI), Saint Paul, MN

Freelance Science Writer, Writing Instructor May 2014 to Present

I have written over three dozen pieces of scientific content (online and print), web copy for 4 graduate programs, and dozens of photographs (headshots, research processes). I taught 3 writing workshops for BTI's Science Communications interns.

BAY AREA START-UPS

Content Manager May 2011 - May 2014

I held a variety of full-time and freelance content management positions at early- and late-stage startups, including Airbnb, Peek, Deem, and Plum District. In rigorously detail-oriented positions, I wrote and edited marketing/website/email copy, and designed visuals or photo essays for geographically targeted content in up to 8 markets simultaneously. I developed exceptional writing and project management skills in rapidly evolving and deadline-driven work environments.

Publications

[1] **C. Estelle Smith**, Xinyi Wang, Raghav Karumur, and Haiyi Zhu. 2018. [Un]breaking News: Design Opportunities for Enhancing Collaboration in Scientific Media Production. *Proc. CHI 2018*. (Acceptance Rate: 25.7%) **Best Paper Honorable Mention Award (Top 5% of submissions)**

[2] Haiwei Ma*, **C. Estelle Smith***, Lu He, Saumik Narayanan, Robert A. Giaquinto, Roni Evans, Linda Hanson, and Svetlana Yarosh. 2017. Write for Life: Persisting in Online Health Communities with Expressive Writing and Social Support. *Proc. ACM Human-Computer Interaction* 1, 2, Article 73 (November 2017). (Acceptance Rate: 27.3%) *Co-first authors