# JANE HSIEH

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#### **EDUCATION**

Carnegie Mellon University PhD candidate in Software Engineering Oberlin College Bachelor of Arts in Computer Science and Mathematics With a Concentration in Cognitive Science August 2020 - Present August 2016 - May 2020 (Major) GPA: (3.77) 3.71

#### **PUBLICATIONS**

- 1. Jane Hsieh, Yili Hong, Gordon Burtch, Haiyi Zhu, "A Little Too Personal: Effects of Standardization versus Personalization on Job Acquisition, Work Completion, and Revenue for Online Freelancers", *CHI Conference on Human Factors in Computing Systems, CHI '22*, New Orleans, LA, Preprint.
- 2. Michael Xieyang Liu, Jane Hsieh, Nathan Hahn, Angelina Zhou, Emily Deng, Shaun Burley, Cynthia Taylor, Aniket Kittur, Brad A. Myers, "Unakite: Scaffolding Developers' Decision Making About Trade-offs through Capturing and Organizing Web Resources", ACM Symposium on User Interface Software and Technology, UIST'19, New Orleans, LA, October 20-23, 2019. pp. 67-80. ACM DL and local pdf. Best Paper Honorable Mention Award from the ACM Symposium on User Interface Software and Technology, UIST'19 (top 6 out of 93 accepted papers).
- 3. Michael Xieyang Liu, Nathan Hahn, Angelina Zhou, Shaun Burley, Emily Deng, **Jane Hsieh**, Aniket Kittur and Brad A. Myers, "UNAKITE: Support Developers for Capturing and Persisting Design Rationales When Solving Problems Using Web Resources", *DTSHPS'18 Workshop on Designing Technologies to Support Human Problem Solving* (DTSHPS'18) at VL/HCC'2018. Oct. 1, 2018. p. 25. extended abstract or full proceedings.
- 4. Jane Hsieh, Michael Xieyang Liu, Brad A. Myers, Aniket Kittur, "Poster: An Exploratory Study of Web Foraging to Understand and Support Programming Decisions," 2018 IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC'18), October 1 4, 2018, Lisbon, Portugal. pp. 305-306. IEEE DL and local pdf.
- 5. Yumi Ijiri, Kathryn L. Krycka, Ian Hunt-Isaak, Hillary Pan, **Jane Hsieh**, Julie A. Borchers, James J. Rhyne, Samuel D. Oberdick, Ahmed Abdelgawad, Sarah A. Majetich, "Correlated spin canting in ordered core-shell Fe<sub>3</sub>O<sub>4</sub>/Mn<sub>x</sub>Fe<sub>3-x</sub>O<sub>4</sub> nanoparticle polycrystalline assemblies," *Physical Review B* 99(9). March 18, 2019. p. 094421. APS DL and local pdf.

#### RESEARCH & WORK, EXPERIENCES

## Data Science Consultant at Upwork Inc.

Summer 2021 - ongoing

 $Supervised\ by\ Sibo\ Lu$ 

Remote

Working on measuring and improving fairness within the platform (further details are protected under NDA).

#### Moderation and Automation: Open Source Toxicity Management

Spring 2021 - ongoing

Advised by: Haiyi Zhu & Laura Dabbish

Remote

Recruit interviewees from Github to discuss open source toxicity moderation strategies and bot interactions Conduct qualitative interviews and mentored 2 undergraduate research assistants.

#### Personalization versus Standardization Gig Worker Strategies

Fall 2020 - Sept 2021

Collaborators: Haiyi Zhu, Gord Burtch, and Kevin (Hong) Li

Pittsburgh, PA

Empirically analyzed freelancer.com chat data to reveal communication strategies.

Manuscript of CHI submission available upon request.

# Support Portal at IBM

Summer 2020

Software Enginner Intern on IBM's Toolbox Team

Raleigh, NC

Conducted user research with administrators to reveal internal productivity painpoints and devise solutions Developed drivers in Slack and Github to provide self-service features that normally require admin privileges

#### Constructing Effective Stack Overflow Questions

Fall 2019-Spring 2020

Honors Project in Computer Science, advised by Cynthia Taylor

Oberlin, OH

Conducted literature review to find factors of successful questions, and verified with a two-proportions Z-test Developed a dynamic Chrome plugin that provides actionable suggestions to users constructing questions

#### Interactive Terminal Application for IBM's Multicloud Manager

Summer 2019

Extreme Blue Technical Intern, managed by Ross Grady

Raleigh, NC

Conducted user research with internal Kubernetes operators to identify relevant painpoints Developed vi-based tool for multicloud applications using Python's curses library and Agile practices Created the open-sourced multicloud-incident-response-navigator project and published patent defense

#### **UNAKITE Chrome Extension**

Summer 2018-2019

REUSE Program at Carnegie Mellon University, advised by Brad Myers & Aniket Kittur Pittsburgh, PA Conducted user studies at the HCI institute, designed and implemented interface improvements using React Published and presented findings at the 2018 VL/HCC conference

Continued various user studies and analysis through remote collaboration

#### Characterizing and Separating Magnetic Nanoparticles

2016 - 2018

STRONG Pre-First-Year Program, advised by Yumi Ijiri

Oberlin, OH

Assisted in making design improvements for a nanoparticle separation channel after testing with a prototype Used Jupyter Notebook to fit polarization-analyzed small-angle neutron-scattering data from 16 conditions Analyzed resulting trends to learn about behavior and interactions of the manganese ferrite particles.

#### TEACHING, SERVICE & VOLUNTEERING

#### User Experience Researcher for Educational Equity

Summer 2020 - ongoing

Conducted market research and interviews to build a program to help women (undergraduates and those going under a career) transition to become more familiar with the world of tech

## Web Development for Digital Yearbook

Summer 2020

Designed and implemented visual layout to the digital yearbook using Omeka Classic, CSS, HTML and PHP.

#### Uncovering Covid Workshop Leader

*Spring 2020* 

Planned, trained for and led weekly discussions for 15 admitted Oberlin students on a half-module course exploring Covid-19 from a variety of disciplines. Attended weekly lectures by professors from 8 departments.

Sophomore Opportunities & Academic Resources (SOAR) Leader

Fall 2019 - Spring 2020

Recruit participants and plan for winter retreat to provide students with resources for major declaration.

#### Office hour holder, Grader and Tutor for Algorithms

Fall 2018

Led group workshops to guide students on homework problems twice per week and graded 20 responses.

#### Computer Science Majors Committee Member

Fall 2018 - Spring 2020

Organized department activities, updated committee websites, held weekly office hours

#### Lab helper for Introductory course in Python

Spring 2017, 2018

Assisted  $\approx 20$  students debug and find logical errors in weekly Python assignments

# Oberlin Workshop & Learning Sessions (OWLS) Leader for Algorithms

Fall 2018

Attended class to plan and lead interactive, non-traditional workshops (weekly)

#### Advanced Chinese Drill Session Teacher

Spring 2017

Created lesson plans (after attending class) to lead weekly drills to help students improve speaking fluency