JANE HSIEH

469-450-7176 ◇ Email: jhsieh@oberlin.edu
janeon.github.io ◇ linkedin.com/in/jane-hsieh

EDUCATION

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

RESEARCH & WORK, EXPERIENCES

Supporting Online Freelancers and Open Source Moderators *Fall 2020 - ongoing*
Advised by Haiyi Zhu Pittsburgh, PA
Analyze freelancer.com chat data to reveal communication practices and strategies
Model early freelancer trajectories to identify likelihood points of dropoff
Conduct qualitative interviews to examine open source toxicity moderation strategies and bot interactions

Data science Consultant at Upwork Inc. *Summer 2021 - ongoing*
Supervised by Sibo Lu Remote
Improve Fairness within the platform

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

PUBLICATIONS

1. 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 Tradeoffs 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).

2. 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.

3. **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.

4. 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 $Fe_3O_4/Mn_xFe_{3-x}O_4$ nanoparticle polycrystalline assemblies," *Physical Review B* 99(9). March 18, 2019. p. 094421. APS DL and local pdf.

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 and Tutor for Algorithms *Fall 2018*
Led group workshops to guide students on homework problems twice per week (sessions open to entire class)

Grader for Algorithms, Data Structures *Fall 2017 - Fall 2018*
Assessed and provided feedback to $\approx$ 20 student worksheets weekly

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)

ACM ICPC East Central NA Regional Contest *Fall 2017*
Received Honorary Mention

Advanced Chinese Drill Session Teacher *Spring 2017*
Created lesson plans (after attending class) to lead weekly drills to help students improve speaking fluency

Technical languages: Advanced: Python, Javascript (React & Angular), LaTex
Familiar: Git, C^{++}, CSS/HTML, Swift, Java Beginner: Go, GraphQL, TypeScript

Spoken languages: Mandarin, Shanghainese, Spanish

Other interests: Violin, running, rock climbing, baking, reading

OTHER PROJECTS

Automated Lab Helper (AI project) *Spring 2019*
Created program that lints code, sorts errors and recommends solutions for beginning CS students at Oberlin

Frontend Dev for Conceptum: a Question Repository for Educators *Winter - Spring 2019*
Implemented Angular interface components for an iterative question development site designed for professors

Taskat (HCI project) *Fall 2019*
Designed and implemented React Electron desktop app to help users to record, and track time of tasks

Star and Galaxy Clustering (Systems project) *Spring 2018*
Implemented K-means in C^{++}, used SIMBAD catalogue to query $\sim$ 1000 stars and gnuplot as frontend

Food Optimization and Peer Tutoring Messaging apps *Fall 2018 & Winter 2017*
Developed prototype iOS apps using Swift 2 & 3 PennApps & Oberlin

AWARDS & HONORS

2020 R.J. Thomas Award for Outstanding Computer Science Student $500
Awarded per annum to one senior in the Computer Science Department

Clare Boothe Luce Scholarship at Oberlin College $38,808
Awarded per annum to a woman studying in a scientific field

2018 Computing Research Association for Women GHC Research Scholarship $500

John F. Oberlin Scholarship $69,000

Oberlin College Grant $23,538

Oberlin ASG Endowed Scholarship $20,324

STRONG Scholar $2,500
Researched in 2016 and mentored 2017's cohort of students from underrepresented backgrounds

CONFERENCES & WORKSHOPS ATTENDED

Symposium on Visual Language and Human-Centric Computing October 2018
Presented poster and short talk. Submitted extended abstract and workshop paper *Lisbon, Portugal*

Grace Hopper Celebration Fall 2018
Research scholar with the Computing Research Association for Women *Houston, Texas*

Ohio Summer Research Symposium July 2017
Gave talk on modeling PASANS data of Manganese Ferrite Nanoparticles *Ohio Wesleyan University*

Celebration of Undergraduate Research Oberlin, OH
- Poster: An Exploratory Study of Web Foraging to Understand & Support Programming Decisions *2018*
- Poster: Determining the Magnetic Structure of Ferrite Nanoparticles *2017*
- Poster: Improving the Design of a Magnetic Nanoparticle Separation Channel *2016*