

JANE HSIEH

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EDUCATION

PhD in Software Engineering from Carnegie Mellon University	August 2020 - Present
Bachelor of Arts from Oberlin College	August 2016 - May 2020
Majors in Computer Science and Mathematics, Concentration in Cognitive Science	Major GPA: 3.77
Member of <i>IEEE</i> and <i>American Physical Society</i>	Cumulative GPA: 3.71
IB Diploma recipient	HS Ranking: 2/22

RESEARCH & WORK, EXPERIENCES

Support Portal at IBM	<i>Summer 2020</i>
<i>Software Enginner Intern on IBM's Toolbox Team</i>	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	
Interactive Terminal Application for IBM's Multicloud Manager	<i>Summer 2019</i>
<i>Extreme Blue Technical Intern, managed by Ross Grady</i>	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	<i>Summer 2018-2019</i>
<i>REUSE Program at Carnegie Mellon University, advised by Brad Myers & Aniket Kittur</i>	Pittsburgh, PA
Conducted user studies at the HCI institute, designed and implemented interface improvements using React	
Published and presented findings at the 2018 <i>VL/HCC</i> conference	
Continued various user studies and analysis through remote collaboration	
Characterizing and Separating Magnetic Nanoparticles	<i>2016 - 2018</i>
<i>STRONG Pre-First-Year Program, advised by Yumi Ijiri</i>	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 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).
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 $\text{Fe}_3\text{O}_4/\text{Mn}_x\text{Fe}_{3-x}\text{O}_4$ nanoparticle polycrystalline assemblies," *Physical Review B* 99(9). March 18, 2019. p. 094421. APS DL and local pdf.

CONFERENCES & WORKSHOPS ATTENDED

Symposium on Visual Language and Human-Centric Computing	October 2018
Presented poster and short talk. Submitted extended abstract and workshop paper	<i>Lisbon, Portugal</i>
Grace Hopper Celebration	Fall 2018
Research scholar with the Computing Research Association for Women	<i>Houston, Texas</i>
Ohio Summer Research Symposium	July 2017
Gave talk on modeling PASANS data of Manganese Ferrite Nanoparticles	<i>Ohio Wesleyan University</i>
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

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	

TEACHING, EXTRACURRICULARS & VOLUNTEERING

Web Development for Digital Yearbook	<i>Summer 2020</i>
Designed and implemented visual layout to the digital yearbook using Omeka Classic, CSS, HTML and PHP	
Uncovering Covid Workshop Leader	<i>Spring 2020</i>
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	<i>Fall 2019 - current</i>
Recruit participants and plan for winter retreat to provide students with resources for major declaration	
Office hour holder and Tutor for Algorithms	<i>Fall 2018</i>
Led group workshops to guide students on homework problems twice per week (sessions open to entire class)	
Grader for Algorithms, Data Structures	<i>Fall 2017 - Fall 2018</i>
Assessed and provided feedback to ≈ 20 student worksheets weekly	

Computer Science Majors Committee Member *Fall 2018 - current*
 Organized department activities, updated committee websites, held weekly office hours

Lab helper for Introductory course in Python *Spring 2017, 2018*
 Assisted ≈ 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: Python, Javascript (React & Angular), LaTeX, Git, Java, C++, CSS/HTML, Swift

Spoken languages: Mandarin, Shanghainese, Spanish

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

OTHER PROJECTS

Automated Lab Helper *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 *Fall 2019*
 Designed and implemented React Electron desktop app to help users to record, and track time of tasks

Star and Galaxy Clustering *Spring 2018*
 Implemented K-means in C++, used SIMBAD catalogue to query ~ 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