

Melanie Chio



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EDUCATION

Stony Brook University – B.S. Computer Science

August 2018 – Expected May 2022

- **Relevant Coursework:** Analysis of Algorithms, Computer Networks, Data Structures, Data Visualization, Programming Abstractions, Object Oriented Programming, Scripting Languages, Software Engineering, Systems Fundamentals
- Women in STEM & Engineering (WISE) Honors Program

TECHNICAL EXPERIENCE

Citi – ICG Software Development Intern

June 2021 – August 2021

- Designed and implemented novel UI frontend components for 16 pages to track and organize internal team documentation
- Built 25% of 40+ Tableau dashboards in testing to stress test data clusters and backend pipelines prior to internal launch
- Collaborated with 2 developers to develop and push to production data probe for Tableau using Python Selenium to automate identification of 87% of node and CPU related errors

Blind Love Letters – Web Developer

July 2020 – January 2021

- Developed web app with 3 developers ahead of beta launch using React, HTML, CSS, JavaScript, jQuery, Bootstrap, Firebase
- Collaborated with 3 UX designers to create novel UI components from high-fidelity prototypes for About and Profile pages

Stony Brook University – Systems Fundamentals I: Teaching Assistant

August 2020 – December 2020

- Hosted 4 office hours per week to help 100+ students understand systems concepts and debug code in MIPS Assembly
- Executed exam review sessions with 7 other teaching assistants and monitored discussion boards to answer 400+ questions

PROJECTS

Population Equality in Congressional Redistricting

August 2021 – Present

- Building full stack web application to minimize gerrymandering for Arizona, Michigan, and Virginia by generating congressional redistricting plans with equal population using React, Mapbox API, SeaWulf Supercomputer, Java Spring Boot
- Implemented frontend map component and local server and developed methods to fetch GeoJSON district lines to GUI

Clarity – HackDuke: Ideate 2020

July 2020

- Designed full flow, medium fidelity UI web application to make remote learning accessible for Autistic middle school students
- Researched target demographics to understand the shortcomings of existing technologies and need for product in market

Discover RTC: Data Processing Pipeline – Rewriting the Code

June 2020 – August 2020

- Developed full-stack web app with 3 college students to automate the process of accessing and analyzing membership data
- Built 5 visualization models with Tableau and connected them to Google Sheets and Railway Importer to enable live updates
- Implemented data cleaning script using JavaScript and Airtable API on over 7,000 cells of data creating 78% more accurate visualizations and subsequently populating over 5,000 individual profile pages
- Placed 3rd against 20 project teams after presenting to RTC, Morgan Stanley, Two Sigma, SAS, and Bank of America leadership

Other: First Place – AT&T Women in Tech Hackathon 2016, Second Place – JPMorgan Youth in Tech Challenge 2016

LEADERSHIP POSITIONS

Theta Tau Professional Engineering Fraternity – Service Chair

August 2021 – Present

- Executing biweekly community service events with local nonprofits and businesses reaching over 25 fraternity members
- Organizing spreadsheets, event itineraries, and budgeting information using Notion workspace and Google Sheets

Other: Peer Mentor – College of Engineering and Applied Sciences, Recruitment Chair & Professional Development Chair – Theta Tau

RELATED SKILLS

- **Programming Languages:** Java, HTML, CSS, JavaScript, C++, Python, C, MIPS Assembly
- **Other:** React, Java Spring Boot, Express.js, SQL, Firebase, Figma, Tableau, Office 365