

# SOPHIE ZHOU

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## EDUCATION

### University of Michigan, College of Engineering

Bachelors of Science in Computer Science

Ann Arbor, MI

2022 - 2026

- Cumulative GPA: 3.75/4.00 | James B. Angell Scholar | 5x University Honors | Dean's List
- Minors in Statistics and Multidisciplinary Design
- Notable Courses: Machine Learning, Algorithms, Linear Regression, Data Structures, Probability

## EXPERIENCE

### The Boston Consulting Group

Summer Associate

Chicago, IL

Summer 2025

### Electric Power Research Institute

Software Engineering Intern

Charlotte, NC

Summer 2024

- Built frontend web features in Python to visualize benchmarked photovoltaic (PV) plant performance and reliability as part PV database project awarded > \$2 million in DoE grants
- Designed and implemented modular interface allowing users to create custom comparisons across varying metrics and filtration levels to analyze variations in benchmarking metrics across geospatial, time series, and cross-sectional data distributions and identify PV plant loss sources
- Structured backend pathways and request handling for web server, optimizing database queries and response latency to ensure secure data retrieval for REST APIs with authentication, caching, and data anonymization techniques, preserving privacy and reducing server load by 15%

### Goodnotes

Product Management Intern

Hong Kong SAR

Summer 2023

- Redesigned shop interface by analyzing events tracking data to develop a ranking algorithm and new carousel and display configurations, optimizing visibility and reducing friction of user path flows to improve purchase conversion, resulting in highest monthly sales of \$500k+ USD
- Sourced and negotiated partnerships with 5 external collaborators to launch new product lines to mitigate seasonal volatility in sales revenue, driving inventory growth by 25% over 2 months
- Revamped pricing strategies to maximize in-app purchases and improve inefficiencies by researching competitor pricing structures and conducting own-price elasticity experiments, yielding 20% month-over-month sales growth following implementation of new pricing system

### Team Flow (Michigan Health Engineered for All Lives)

Project Lead

Ann Arbor, MI

Sept 2023 - Present

- Devised novel IV drip rate monitor prototype, building signal processing and software integration components to optimize analog to digital signal conversion and connect infrared light based circuit to STM 32-bit ARM microcontroller unit and LCD display, yielding medication misadministration solution with 80% cost reduction compared to current market products
- Led team of 6 on user needs assessment trip to Komfo Anokye Teaching Hospital in Kumasi, Ghana, conducting 20+ interviews and focus groups with medical workers across 5 departments to understand specific product use cases, ideal interface, hospital integration and product rollout
- Formulated compelling business proposal highlighting Flow's unique technology, product-market fit, growth potential, and commitment to equity, securing \$15,000+ in grants

### BOND Consulting Group

Vice President of Recruitment

Ann Arbor, MI

Jan 2023-Present

- Constructed a demand forecasting model to inform supply for a baseball stadium by scraping weather and point-of-sale data in a multivariate classifier ultimately adopted by the client
- Developed tip-inclusive pricing plan for local brewery by building price sensitivity model to generate projections for optimal price points, revealing 12% projected upside
- Guided team of 7 consultants through weekly scoping and ideation, providing feedback to generate overhead cost allocation model and wholesale expansion strategy for local lavender farm

## ADDITIONAL

- Programming: Python (PyTorch, TensorFlow, scikit-learn, Flask), R, C++/C, SQL, HTML, js, React
- Languages: Native Proficiency Mandarin Chinese, Working Proficiency Spanish
- Volunteer firefighter at Brighton Fire Department for 3 years, serving as chief of youth volunteers
- Newly converted through hiking enthusiast after walking 280+ kilometers from Porto, Portugal to Santiago de Compostela in Galicia, Spain along the Camino de Santiago in May of 2025
- Continuously seeking new methods to upcycle ever growing collection of ceramic yogurt pots; most successful attempts thus far have been homemade candles and windowsill herb garden