Aaron Hsu

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EDUCATION

University of Michigan - College of Literature, Science, and Arts

Ann Arbor, MI

B.S in Computer Science, Minor in Statistics

April 2025

- Relevant Coursework: Programming and Data Structures | Data Structures and Algorithms | Web Design, Development, and Accessibility | Python 3 Programming Specialization | Foundations of Computer Science | Introduction to Computer Organization
- Current Coursework/Skills: Database Management Systems (SQL, MongoDB) | Statistical Computing (R) | Web Systems (Flask, React JS, Python, Hadoop, HTML, CSS)

SKILLS

Languages: C/C++, Java, Javascript, HTML, CSS, R, Python, Mandarin (Native Fluency)

Frameworks: Visual Studio, VS Code, GitHub, Microsoft Office

WORK EXPERIENCE

Tiimo Copenhagen, DK

Engineering Intern

May 2023- July 2023

- Conducted biweekly smoke tests of Android beta application alongside the development team.
- Documented issues in Notion/Linear; developed solutions for over 30+ functionality bugs and proposed various UI/UX fixes.
- Outreached to companies and influencers, leveraging pitching skills to provide information about the app and pursue B2B leads.
- Collected feedback from active users through surveys and in-person interviews, utilizing data to inform on product decisions.

Shinsung SoundMotion Ann Arbor, MI

Engineering Intern

May 2022 - September 2022

- Designed various PCBs using Sprint Layout and Cut2D, integrating models into silicon neural probes for clinical testing.
- Engraved designs on copper boards using a Wegstr CNC Prototyping Mill, aiding in production of neural probe prototypes
 used for pre-distribution testing.
- Operated a wire bonder and a K&S Hydrogen Ball Bonder to aid in PCB design, successfully reducing drill bit size to .019 mm in order to meet specifications.
- Presented documentation on design optimizations and clinical testing, including various testing approaches and results.

University of Michigan - Center for Entrepreneurship

Ann Arbor, MI

Instructional Aide

September 2023 - Present

- Overseeing course operations for ~30 students, managing logistics such as attendance and grading.
- Answer student questions and prepare lecture material for each class.

PROJECTS

Custom Relational Database ("SQL") - C++

- Designed and implemented a custom relational database emulation program in C++ with hash maps, focusing on efficient data storage, retrieval, and algorithmic optimization.
- Created an interactive shell interface that allowed users to execute queries and interact with the database.
- Implemented functionality supporting table joins, indexes, and various queries.

Graph Analysis and Optimization - C++

- Utilized graphs and adjacency matrices to model and manipulate data point connectivity.
- Implemented heuristic algorithms and analytical tools for optimizing routes between data points, effectively minimizing runtime and narrowing the search space for enhanced efficiency.

ACTIVITIES

Tau Epsilon Kappa - Professional Technology Fraternity

Ann Arbor, MI

VP of Operations

January 2023 - Present

- Coordinate event logistics, organizing professional development and networking events.
- Actively developing a database with event documentations, academic resources, and member profiles.