Michael (Zhenhang) He

701 E University Ave, Ann Arbor, MI 48109 | +1 438-389-8527 | michaezh@umich.edu

Education

University of Michigan, Ann Arbor, MI — Graduating in 2022

Bachelor of Science in Computer Science (**Cumulative GPA:** 3.89/4.00)

Relevant Courses: EECS445:Introduction to Machine Learning, EECS484:Database Management System, EECS281:Data Structure & Algorithm, EECS370:Introduction to Computer Organization

Awards and Honors:

- University of Michigan Makeathon 2020 | First Place | Product Design and Development Competition
- IEEE Eta Kappa Nu Member | Honor Engineering Society
- Honors Program Student and Honors Sophomore Award Candidate

Employment

Procter & Gamble — May 2020 - Present

Project Management Intern

- Collaborating with business experts to identify redundancies, proposing and leading 4 innovation projects to automate and remove steps in SAP S&D to reduce monthly cost by $20-30k, time spent by 20 hours weekly and enhance performance by 5-15%
- Designing and spearheading Customer Fund Management data migration project from legacy database into Azure Cloud and advocating for a new proof of concept data workflow to improve efficiency by 20%, reduce monthly cost by $30k
- Planning and executing regression and user acceptance testing for code synchronization from 7000+ regional changes and 5 medium size projects into North America SAP System. Saved 200 hours of individual changes by managing defects
- Redesigning the IT SAP Training Module with HR to align with new government regulations and applied employee survey result to make improvements on presentation of content and saving a total cost of $8k in expense and 10 hours per new employee

Shared Mobility Application — Apr. 2020 - Present

Software Developer

- Working with Professor Masoud to enhance road infrastructure networks efficiency by up to 10% through maximize ride sharing services capacity by algorithm selection and gaining exposure on Multi-modal Transportation and P2P RideSharing infrastructure
- Used Express framework, Mongoose and Socket.io to create server-side application and applied Ford-Fulkerson Algorithm for Maximum Flow (first iteration) to find the most optimal pairing based on location and time
- Used Kotlin and XML on android studio to design the frontend interface and incorporated Open Source Routing Machine (OSRM) APIs for visual displays and routing algorithm to enhance user experience and reduce the workload on backend calculation

WiseTech Global: CargoWise One — July 2019 - Aug. 2019

Software Engineering Intern

- Developed Frontend UI for Transport logistics information to handle the increasing user traffic and data flow on the platform using Winform and C# to grow clients data collections and identified and resolved user experience issues when navigating the platform
- Expanded translation features within a platform module in collaboration with customer solution team saving up to 20 hours weekly for customers and created customized components that can be adjusted to meet specific business needs
- Identified inefficiencies within the current training module, redesigned it into a 40 hour project modeled after computer science projects from university classes. Expand documentation for future employees, saving up to 20 hours weekly per new employee

Projects

BreakOut Application

- Initiated and gathered a team of 6 to develop an application that aims to provide virtual study environments to boost work efficiency
- Outlined over 5 versions of user story and usage flow, created work breakdown structure, used agile methodology to manage the team, and connected with 4 different advisors from different disciplines for product design and development suggestions
- Collaborated with designers to outline for client-side application features and worked with other developers to build application functions through React Native library and UI visual design through Bootstrap framework
- Developing server-side application for chatroom and real-life status update functions through Express framework and Socket.io

Food Recognition Software:

- Designed two machine learning model for both supervised and unsupervised deep learning using python tensorflow and pytorch that classifies different food image inputs base on 5 categories and achieved an accuracy rating of 89%
- Applied CNN (resnet18) and autoencoder network to enhance the efficiency of the model and decrease the possibility of overfitting
- Experimented with feature selection method and drop out technique to reduce the size and complexity of the input data and model

Skills and Other Experiences

Technical Skills - Experienced with C++, C#, Python, React Native, React, Express and Javascript, Proficient in HTML, CSS, Kotlin, SQL

Languages: English(Native) and Chinese (Native)

Other Experiences - Studied Buddhism in a monastery in rural China for the summer of 2018