

Yixin Xiao

202 Fleece Flower Drive, Gaithersburg, MD, 20878

(C) 301-541-9605 | yixinx@umich.edu

<https://yixinxiao7.github.io/site/#/>

EDUCATION

University of Michigan, Ann Arbor

- **BSE** Computer Science Engineering | **Minor:** Business Admin September 2017 – May 2021
- College of Engineering GPA: **3.80** / 4.00 (summa cum laude)
- **Relevant Coursework:** Data Structures and Algorithms, Web Systems, Operating Systems, Computer Security, Mobile App Development, Computer Organization, Software Engineering, Matrix Algebra, Discrete Mathematics

WORK EXPERIENCE

University of Michigan – Palfey Lab

Ann Arbor, MI (Remote)

Undergraduate Research Assistant

October 2020 - Present

- Construct full stack search engine integrated with Neo4j database (graph database)
- Containerize and deploy web platform via Docker and OpenShift, allowing for easier domain configuration
- Develop search algorithms via cypher queries and modified Jaro Winkler algorithm to support partial and fuzzy searching
- Simulate chemical compound structures with Visjs (graphing library) which led to interactive graph search methods

Capital One

Richmond, VA (Remote)

Software Engineering Intern

June 2020 - August 2020

- Developed full stack business-facing app in agile environment to automate fraud compliance
- Created RESTful API which interacts with external and internal services, enabling users to create and track JIRA issues
- Leveraged Angular to build a UI which allows users to easily interact with API and view filterable dashboard of fraud-related tasks
- Implemented multithreading and caching to improve issue retrieval runtime by up to 91%

Applied Research Associates

Alexandria, VA

Scientific Programming Software Engineering Intern

May 2019 - August 2019

- Merged two separate code databases based on a simulation program with over 100,000 LOC and 25 years of development
- Constructed a Dynamic-Link Library (DLL), allowing multiple driver programs to use specific simulation components and functions
- Developed API for the DLL, granting users ability to run simulations with unique parameters and manipulate output data
- Built functionality of existing GUI for the simulation program into the DLL to maintain and integrate GUI functionalities
- Enhanced user flexibility for data management after revamping the I/O system by transferring data to memory

Crowds and Machines Lab

Ann Arbor, MI

Undergraduate Research Assistant

September 2018 - February 2020

- Researched the use of active learning (AL) to create a machine learning model that interchanges active learning frameworks
- Developed a flexible Convolutional Neural Network wrapper class to easily switch active learning frameworks and test hypothesis
- Implemented text dataset loaders, expanding the experimental pipeline to evaluate performance of AL strategies on text data
- Configured wrapper class to work on both CPU and GPU (CUDA), boosting the speed and efficiency of testing

Posterity Group, LLC

Derwood, MD

Project Management / IT Intern

June 2018 - August 2018

- Applied Poka Yoke and other Six Sigma concepts, mixed with meetings with CEO and COO, to improve the business hiring process
- Leveraged JavaScript to automate internal interdepartmental documents to promote QA and expedite office workflows
- Used Microsoft Flow to automate business workflows that achieved more efficient work cycles between PM and HR departments

LEADERSHIP/EXTRACURRICULAR

Michigan Hackers

Web Development Core Member

September 2018 – May 2020

- Leverage React to develop interactive and user-friendly review pages, completing the main frontend component of the web app
- Utilize Bootstrap to create stylized components, increasing user-engagement
- Developed a full-stack architecture through brainstorming and communication with both frontend and backend teams

Tau Beta Pi (Engineering Honor Society)

Professional Development Chair

January 2019 – September 2019

- Created networking event involving icebreakers and post-event activities, increasing new member retention
- Set up the foundations for new cover letter workshop, including its structure and resources to contact

DEI Core Committee Member

January 2020 – May 2020

- Conduct monthly book club to increase community awareness of DEI and promote open discussion on enhancing DEI at TBP
- Facilitate weekly meetings to dissect the current state of DEI at TBP and debrief progress reports

SKILLS & ABILITIES

Related Framework and Languages

- C++, Python, Java (Spring Boot), JavaScript (React, Angular, Bootstrap), SQL, HTML/CSS, Docker, Fortran, MATLAB, Linux, Git