

Yixin Xiao

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EDUCATION

University of Michigan, Ann Arbor

- **BSE** Computer Science | **Minor:** Business Admin Received: May 2021
- GPA: **3.80** / 4.00 (summa cum laude)
- **Relevant Coursework:** Data Structures and Algorithms, Machine Learning, Web Systems, Operating Systems, Computer Security, Mobile App Development, Computer Organization, Software Engineering

WORK EXPERIENCE

Capital One

New York, NY

Senior Software Engineer

Aug. 2021 – Present

- Design resilient infrastructure with Terraform enterprise Spark-based platform used by 5000+ people, to prevent any potential data loss among users
- Modified compute policies which reduced the platform monthly compute costs by around \$100,000
- Integrated Pytest framework into deployment pipeline, giving the team real-time platform heart-beat checks
- Configured server-side routing with Webpack, enabling direct URL access and live-reloading for front-end development
- Implemented user sessions by connecting session storage to RDS, enhancing user security
- Optimized TF-IDF wrapper method and AWS RDS schemas to improve and expedite search results by up to 35%
- Developed UI for a new initiative, automating a process that involved 100+ products and stakeholders

University of Michigan – Palfey Lab

Ann Arbor, MI

Undergraduate Research Assistant

Oct. 2020 – Aug. 2021

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

Capital One

Richmond, VA

Software Engineering Intern

June 2020 – Aug. 2020

- Developed full stack (Angular + Java Spring) business-facing app in agile environment to automate fraud compliance
- Created RESTful API that interacts with external and internal services, enabling users to create and track JIRA issues
- 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 – Aug. 2019

- Constructed a Dynamic-Link Library (DLL) and API, allowing driver programs to use specific simulation components

Crowds and Machines Lab

Ann Arbor, MI

Undergraduate Research Assistant

Sep. 2018 – Feb. 2020

- Developed flexible Convolutional Neural Network wrapper class to easily switch active learning frameworks

LEADERSHIP/HONORS

Michigan Hackers

Web Development Core Member

Sep. 2018 – May 2020

- Leverage React to develop interactive and user-friendly review pages for school courses

Tau Beta Pi (Engineering Honor Society)

Professional Development Chair

Jan. 2019 – Sep. 2019

DEI Core Committee Member

Jan. 2020 – May 2020

TECHNICAL SKILLS

Related Framework and Languages

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

Certification: AWS Certified Solutions Architect - Associate