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 Convoluted 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