Mandy Zhou

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EDUCATION

Bachelor of Science in Computer Science Aug 2021 to May 2024

Minor in Business

Arizona State University | Tempe, AZ 4.01 GPA

- Dean's List Fall 2021 to Fall 2022
- **Relevant Coursework**: Data Structures and Algorithms, Software Engineering, Operating Systems, Principles of Programming Languages, Object-Oriented Programming, Digital Design/Computer Organization & Assembly Language, Project Management
- **Fall 2023 Coursework**: Capstone I, Databases, Software QA Design, Machine Learning, Quantum Mechanics, Spaceworks

TECHNICAL SKILLS

- **Programming Languages**: Python, Java, C#, C++, C, HTML, CSS, Javascript, SQL, SKILL, Bash
- **Engineering Technologies**: Linux, VS Code, Git, GitHub, Jira, BitBucket, Eclipse, Visual Studio, CLion, MATLAB, Salesforce, Microsoft Office, Google Suite

PROFESSIONAL WORK EXPERIENCE

Deep Learning Researcher | Arizona State University | Tempe, AZ Spring 2023

- Undergraduate researcher under Dr. Mutsumi Nakamura on the research of Visual Question Answering (VQA) and the cognitive processing of combined visual and textual input.
- Implemented Python script to parse and create 400 randomized JSON questions from APIs for control group testing.

Engineer Intern (CAD) | Microchip Technology | Chandler, AZ Summer 2022 to Spring 2023

- Developed a Python script utilizing Pandas and Click (CLI) to report, filter, and analyze Process Design Kits (PDK) usage activity to increase efficiency in PDK data management.
- Automated techfile generation used for Cadence Virtuoso, utilizing Python, Pandas, NumPy, and Click.
- Developing SKILL scripts to track usage logs by quantity and team and adding Help buttons to link to Confluence pages.
- Creating a Python script to remove PDKs using fabric and DesignSync API to access specific sites worldwide to recover disk space and reduce PDK selection errors.

PROJECTS

Musical Cellular Automata | C# Mar 2023 to Present

- Developing rules over a finite grid space to create visual patterns responsive to music frequencies and duration derived from Finite State Machines.

Compiler Design (Principles of Programming Languages) | C++ Spring 2023

- Writing a recursive descent, top-down parser to tokenize and parse user input for lexical and syntax analysis.
- Utilizing Hindley-Milner Type Checking to add language types for semantic analysis.

Portfolio Website zhoumandy.github.io | HTML, CSS, Javascript Dec 2022

Pizza Ordering System (Software Engineering) | Java, JavaFX Fall 2022

- Led a team of five using the Agile methodology utilizing Jira and Github to create interfaces for the customer to online order (menu and cart features) and cashier to receive and update order status synchronously, dual-viewable.

Lyft & Helixcases Hackathon | Java Mar 2022

- Finalist in a 3-hour collaborative programming hackathon to minimize driver rating bias by efficiently calculating user wait and drive times by detecting closest accidents, using a queue to add and remove accidents, analyzing peak hours, etc.

EXTRACURRICULAR INVOLVEMENT

Treasurer | Women in Science and Engineering | Arizona State University Aug 2021 to Present

- Manage all financial decisions; monitoring funds distribution, budgeting, and purchase requests.
- Facilitate and organize campus-wide events for professional development, leadership, networking, and community service, e.g. Industry Professional Roundtable, Resume Review, TechUp for Women NYC Conference, etc. to develop an engaging and supportive community for women in the STEM industry.

Member | Women in Computer Science, Society of Women Engineers, Machine Learning Club | Arizona State University

OTHER WORK EXPERIENCE

Autodesk Support Specialist | Education At Work | Tempe, AZ Dec 2021 to Aug 2022

- Resolved customer issues and questions regarding limited product support, verification, software installation, and licensing through live chat and email using Salesforce.