

Mandy Zhou

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EDUCATION

B.S. in Computer Science, 3.96/4.00 GPA | Arizona State University | Tempe, AZ

Aug 2021 to May 2024

Minor in Business

- **Relevant Coursework:** Data Structures & Algorithms, Software Engineering, Operating Systems, Object-Oriented Programming, Digital Design/Computer Organization & Assembly Language, Machine Learning, Data Science, Database Management

TECHNICAL SKILLS

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

PROFESSIONAL WORK EXPERIENCE

Technology Engineer Intern | Nationwide | Columbus, OH

Summer 2023

- Rewrote legacy codebase from VB.NET to Java, implementing modern design patterns and best practices to enhance stability.
- Architect and migrate the application to a cloud-native environment; built a CI/CD Pipeline to deploy code to various environments.
- Leveraging the project management tool, Jira, and Git for version control, following Scrum ceremonies and Agile methodologies.

Deep Learning Researcher | Arizona State University | Tempe, AZ

Jan 2023 to May 2023

- Assistant researcher of Visual Question Answering (VQA) and the cognitive processing of combined visual and textual input.
- Implemented Python program to create 400 randomized questions and control testing on image-only and passage-only inputs.

Engineer Intern (CAD) | Microchip Technology | Chandler, AZ

Jul 2022 to May 2023

- Increased efficiency in PDK data management and the SKILL library, through creating a Python script utilizing Pandas and Click (CLI) to report Process Design Kits (PDK) usage statistics and SKILL script to report usage statistics across all scripts.
- Automated techfile generation used for Cadence Virtuoso, utilizing Python, Pandas, NumPy, and Click.
- Streamlined the removal of PDKs using fabric multithreading to access specific sites worldwide to recover disk space and reduce PDK selection errors.

PROJECTS

Full Stack Health & Wellness App | Javascript

May 2023 to Present

Systems Engineer, NASA Nationwide Eclipse Ballooning Project

Mar 2023 to Present

- Develop, deploy, and operate high-altitude balloons to be released during the 2023 and 2024 solar eclipses to collect live data and video, and to study the effect of eclipses on atmospheric conditions.
- Build and test payload components, use of mobile ground station, plan and practice balloon launches.

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 implement language types.

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.
- Utilized Moqups and Astah to create UI prototypes, UML diagrams, Use Case diagrams, etc.

Project SPYN, Autonomous Vehicles (Introduction to Engineering) | MATLAB

Fall 2021

- Programmed and designed an autonomous robot vehicle to navigate through a maze and various obstacles from the start to final destination, working in a team of four.

EXTRACURRICULAR INVOLVEMENT

Fellow | Break Through Tech AI | Cornell Tech

May 2023 to Present

- Acquire hands-on experience in Data Science, Machine Learning, and Artificial Intelligence through a rigorous ML Engineering curriculum and real-world projects, mentorship, and collaboration with industry-leading organizations of the AI Studio.

Member, former Treasurer | Women in Science and Engineering | Arizona State University

Aug 2021 to Present

- Led and organized events for professional development, leadership, and networking, e.g. Industry Roundtable, Resume Review, TechUp for Women NYC Conference, to develop an engaging and supportive community for women in STEM.
- Managed all financial decisions; monitoring funds distribution, budgeting, and purchase requests.

OTHER WORK EXPERIENCE

Autodesk Support Specialist | Education At Work | Tempe, AZ

Dec 2021 to Aug 2022

- Resolved customer issues and questions with product support, installation, verification, and licensing utilizing Salesforce.

Operations Manager | Jia Cafe | Gilbert, AZ

Dec 2018 to Jan 2023

- Our family-owned restaurant included tasks: bookkeeping, administrative management (internal and external communications, maintenance, licensing, etc.), marketing and advertising (social media management, online and mailed ads, menu design).
- Operated front & back of house e.g. cashier, assistant cook; worked in a fast-paced environment to guarantee customer satisfaction.