Nina Mason

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SUMMARY

Software engineering senior with experience in Java, Python, and full-stack development through sponsored capstone and personal projects. Seeking a Spring 2026 internship or full-time role upon Summer 2026 graduation.

EDUCATION

B.S.E., Software Engineering May 2026
Arizona State University, Tempe, AZ 3.85 GPA
Relevant Coursework: Data Structures & Algorithms, Software Engineering Capstone, Machine Learning Foundations, Database Systems, Operating Systems

TECHNICAL SKILLS

Programming Languages: Java, Python, JavaScript, C, C++, C#, HTML/CSS
Frameworks & Libraries: JavaFX (MVC), Java Swing, Tkinter, Streamlit
Databases: MongoDB Atlas, MySQL, JSON-based data persistence
Tools & Build Systems: Git/GitHub, Gradle, YAML prompt configuration, Figma, Astah, Lucidchart, Taiga
Back-End & APIs: REST APIs, LLM prompt engineering, multi-step reasoning pipelines
Operating Systems: Windows, macOS, Linux
Additional: Arduino (sensor integration), MIPS Assembly, video editing for demos

PROFESSIONAL EXPERIENCE

Self-Learning AI Tutor—Capstone Project (Sponsored by MyEdMaster LLC) Sep 2025 – May 2026

- Designed and implemented the **core adaptivity algorithm**, dynamically selecting questions based on each student's weakest skills instead of a static sequence, enabling personalized learning paths.
- Extended adaptivity with **weighted accuracy scoring and confidence-based inputs**, prioritizing recent performance and student self-reported confidence to better reflect real learning progress.
- Implemented logic to detect **partially correct problem-solving steps**, restructuring analysis prompts to produce clearer, more supportive AI feedback while reducing misinformation risk.
- Led **database migration and cleanup efforts** by building filtered MongoDB question-fetch APIs, removing deprecated multiple-choice data, and writing one-time migration scripts—reducing database bloat and improving system reliability and scalability.

PROJECTS

GPS Distance App, *Personal Project* Fall 2025

- Developed **CLI and JavaFX GUI** applications to calculate haversine distance, travel time, and manage route data with JSON persistence.
- Built interactive UI features including **route creation, editing, selection, and dropdown-based navigation**.
- Integrated a **mapping API** to visualize routes by embedding dynamic HTML maps within JavaFX components; automated builds using **Gradle**.

Memoranda Software to Bus Scheduler Transformation, *Class Project* Spring 2025

- Applied **Scrum methodology** in a five-person team to refactor and extend a legacy Java codebase.
- Implemented backend **bus routing functionality** and contributed to a GPS-based mapping UI.
- Refactored core components to meet evolving client requirements while maintaining stability and usability.

Image Filter Processor, *Class Project* Fall 2024

- Built a BMP image processing tool in C, applying filters with efficient memory management.
- Parallelized image processing using pthreads, improving performance and demonstrating low-level concurrency skill.

WORK EXPERIENCE

Starbucks, Loveland, CO: Barista May 2018 – Present

- Trained and mentored over 10 new team members, ensuring high onboarding and service standards.
- Managed high-volume shifts during peak hours, enhancing multitasking and problem-solving skills.
- Recognized as Partner of the Quarter for leadership, consistent high performance, and teamwork.
- Completed the elite Coffee Master Program to enhance coffee knowledge and expertise.