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, Secure Software Systems, Web-Based Applications,, 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) Aug 2025 – Present

- Designed the **adaptivity algorithm from scratch** to replace a static quiz flow, dynamically selecting questions based on student performance and learning needs using **Python, Streamlit, and MongoDB**.
- Solved the challenge of accurately modeling learning progress by implementing **weighted accuracy scoring and confidence-based inputs**, enabling the system to adapt over time rather than permanently labeling students as "weak."
- Reworked **LLM analysis logic** to recognize partially correct solutions, improving feedback clarity while reducing the risk of incorrect academic guidance.
- **Continuing to expand the system** by developing dynamic LLM-driven question generation, increasing skill coverage, and strengthening end-to-end testing to improve robustness and personalization.

PROJECTS

GPS Distance App, *Personal Project* Sep 2025 - Dec 2025

- Tackled the challenge of combining geospatial data with desktop UI by building **CLI and JavaFX GUI applications** for distance and travel-time calculation using the haversine formula.
- Independently learned and integrated a **Mapbox mapping API**, embedding dynamic HTML maps into JavaFX to visualize routes in a user-friendly interface.
- Applied lessons from a prior bus scheduling project to design intuitive route creation, editing, and selection workflows; automated builds and packaging using **Gradle**.

Memoranda Software to Bus Scheduler Transformation, *Class Project* Jan 2025 - Mar 2025

- Extended a **legacy Java codebase** within a Scrum team to support new bus routing functionality, adapting existing architecture to meet evolving client needs.
- Implemented backend routing logic and contributed to a **GPS-based mapping UI**, refactoring fragile components to improve system stability and usability.

Image Filter Processor, *Class Project* Oct 2024 - Dec 2024

- Implemented a **pixel-by-pixel BMP image processing pipeline in C**, requiring careful memory management and low-level data handling.
- Parallelized image filtering using **pthreads**, optimizing thread coordination and reconstruction logic to improve performance without corrupting image output.

WORK EXPERIENCE

Starbucks, Loveland, CO: Barista May 2018 – Present

- Balanced **25–30 hours/week** in a high-volume retail environment while mentoring 10+ new hires, leading peak shifts, and earning *Partner of the Quarter* recognition.