AI Systems Integration Intern

Organization: ASU SolarSPELL Initiative (Solar Powered Educational Learning Library)

Location: Tempe and/or Remote

Type: Unpaid or for credit | ~10 hours/week

Eligibility: Open to all students and universities; international students welcome. (Counts as on-campus experience for ASU students—**no OPT/CPT required**.)

Application Deadline: Applications will be open from **July 1- July 20** (please check our student opportunities page to find the application portal)

Applications will be reviewed weekly on a rolling basis until the positions are filled.

Start Date: August 20, 2026

Offline Llama-Based AI Internship – SolarSPELL Initiative (ASU)

The SolarSPELL Initiative at Arizona State University is seeking a team of interns to work on an applied AI project focused on **deploying and integrating offline Llama-based AI systems** into our existing software libraries and hardware.

This project has been initiated by an ASU partner, and your team will take ownership of advancing, refining, and integrating their work into a production-ready, fully offline AI solution. The primary goal is to enable on-device AI capabilities using Llama models in environments without internet connectivity.

Interns will gain hands-on experience working at the intersection of:

- Local LLM inference (Llama-based models)
- Model quantization and optimization for edge devices
- Systems integration and offline-first architecture
- Real-world software engineering workflows for constrained environments

About SolarSPELL

SolarSPELL (Solar Powered Educational Learning Library) is a global educational initiative based at ASU. We create offline, solar-powered digital libraries designed for areas with little

to no access to electricity or internet. Our libraries provide a WiFi hotspot that enables free access to curated educational resources via any smartphone, tablet, or laptop. Learn more: http://solarspell.org

Responsibilities

- Attend a new student orientation and participate in an end-of-semester presentation
- Review and understand an existing partner-developed AI codebase
- Work with Llama-based models (e.g., via llama.cpp or Ollama) for offline inference
- Understand Retrieval-Augmented Generation (RAG)
- Implement and optimize quantized models for low-resource environments
- Design and integrate offline AI pipelines into SolarSPELL's internal libraries
- Evaluate and tune performance (latency, memory usage, accuracy) on Raspberry Pi hardware/OS
- Develop lightweight APIs or interfaces for local AI interaction
- Contribute to code documentation and maintain clear technical records
- Collaborate with teammates and mentors through code reviews and iterative development
- Communicate progress regularly and present final demos and outcomes

Ideal Candidate

- Pursuing a degree in Computer Science, Software Engineering, AI/ML, or related field
- Strong programming skills (Python preferred; familiarity with C/C++ is highly beneficial)
- Experience or interest in running LLMs locally (e.g., Llama, GGUF models, llama.cpp, Ollama)
- Understanding of model quantization, memory constraints, and performance tradeoffs running a Raspberry PI platform
- Interest in offline-first systems, edge AI, or embedded deployments
- Comfortable working with and extending existing codebases
- Strong problem-solving skills and attention to detail
- Ability to work collaboratively in a small, focused team
- Globally minded and motivated to build technology for underserved communities

How to Apply

- When applications open, you will be asked to submit a **resume and cover letter in PDF format** using the following naming convention: `[LastName_FirstName_DesiredPosition]`
- Starting on July 1st, visit our student opportunities page to submit your application

Internship positions are limited each semester. Availability may vary depending on the number of returning interns, and this role may not be open during your preferred term. For questions, contact SolarSPELL's Student Engagement Coordinator, Cassie Barrett, at cbarre38@asu.edu