Joshua Currie

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Education

University of Central Florida — Orlando, FL
Bachelor of Science in Computer Science — *Aug. 2021 – Dec. 2024*

Experience

Software Developer — May 2025 – Present
FSEC Energy Research Center — *Cocoa, FL*

- Continuously develop features and bug fixes for **EnergyGaugeUSA**, a DOE-approved legacy building-energy simulation tool for residential code compliance and energy modeling.
- Designed and implemented a web app to calculate the carbon dioxide equivalent (CO2e) of buildings, ensuring compliance with 2030 zero-carbon goals. Authored full end-user documentation.
- Developed an OCR-powered internal tool leveraging the Google Gemini API to automate verification of residential building images, reducing manual review time.

AI Platform Engineer — Mar. 2025 – May 2025
University of Central Florida — *Orlando, FL*

- Sole developer of an AI chat interface Proof of Concept (PoC) integrating multiple LLMs into a single, UCF-branded software application.
- Designed to provide UCF researchers, stakeholders, and all UCF-affiliated individuals, including students, with rapid, secure access to LLMs, as both the interface and conversation logs remain onsite in UCF's Azure subscription.
- Serves as a bridge between multiple external AI content providers and user interfaces.
- Managed a 5,000 USD budget, approved by the CIO of UCF IT in 2025, from an AI development and research fund.

Software Engineering Intern — Jun. 2024 – Mar. 2025
University of Central Florida — *Orlando, FL*

- Built a full-stack internal web app for querying and visualizing virtual environmental cache data, integrating GitHub Pages, Azure Functions, and JWT-secured APIs.
- Automated network configurations via Python scripts processing F5 data to aid Terraform migration.
- Supported RHEL 7 → RHEL 8 migration for internal systems.

Projects

The Apartment | *Unity, C#, LLM-Driven Dialogue, Pathfinding* — Dec. 2023 – Apr. 2024

- Created a 2D top-down adventure game for "AI for Game Programming," winning **Best in Show**.
- Implemented time-loop puzzles and LLM-driven dialogue for a mystery narrative.
- Integrated pathfinding and advanced character interactions using Unity.

LAGG: Looking at Genomes Graphically | *Python, PyPI, React* — Dec. 2023 – Nov. 2024

- Developed a CLI-based Python package for manipulating large-scale DNA sequencing data.
- Built a React-based admin interface for test scheduling and result management.
- Integrated with a bioinformatics cluster to convert DNA data into visualization pipelines.
- Authored full CLI documentation with examples and reproducibility guidance.

Hackathons

Snap Tracks | *Mobile App, Google Gemini, OCR* — UCF 2024

- A mobile app that lets users take or upload a photo and goes through a pipeline to analysis the photo and create an AI-generated song that perfectly matches the scene and the tone of the image.
- Implemented OCR with **Google Gemini** to extract image features influencing sound.

Purple.ai | *AI Chatbot, LLMs* — FIU 2023

- An AI chatbot website that unified numerious LLMs seemlessly into a single chat, giving the user the ability to switch LLMs mid-conversation as well as let the application scan the user's prompt to select the best-fitted LLM for the response.
- Designed routing logic for context-aware LLM switching mid-conversation.

No Time to Dino | *Godot, Game Development* — UCF 2023

- Expanded the classic Google offline browser Dino game with levels, shops, and in-game currency.
- Developed menu systems and shop/item mechanics.

Technical Skills

Programming Languages: Python, C, C++, C#, Java, HTML, CSS, JavaScript, PHP, Pascal
Technologies/Frameworks: Azure, Azure AI Services, Kubernetes, Docker, CI/CD, Terraform, Entra ID, GitHub Actions, Anaconda, Ansible, Node.js, MongoDB, Linux, React, Jira, Confluence