

Joshua Moner

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EDUCATION

Ohio University | Athens, OH

Bachelor of Science in Computer Science (BSCS)

GPA: 3.76

EXPERIENCE

The J.M. Smucker Co. | Orrville, OH

May 2025 – August 2025

Information Services, Developer

- Implemented a **RAG** workflow that improves **LLM** accuracy by providing **Oracle API** and **Next.js** context.
- Developed a full-stack **Next.js** web application using **TypeScript** that provides a user interface for accessing documents stored in backend file services.
- Constructed a modular **RESTful API** with input validation and sanitization, that allows for secure document search, retrieval, and download workflows across multiple database types.
- Designed and fully implemented a web request forum that integrates **GitHub Actions**, the **GitHub API**, and **Oracle APIs** to automate the generation and customization of ledger documents.
- Containerized Next.js web apps using **Docker** and designed **Kubernetes** manifests for web deployments.

Russ College of Engineering and Technology | Athens, OH

August 2024 – May 2025

Teaching Assistant

- Collaborated with engineering professors to develop and implement effective lesson plans for students.
- Provided one-on-one academic assistance to students, helping them troubleshoot coursework, strengthen technical understanding of material, and resolve academic challenges.

PROJECTS

Respiratory Edge ML System

Spring 2025

- Trained **CNN** and **1D CNN** respiratory models in **TensorFlow/Keras** and **PyTorch** using Mel spectrogram, **MFCC**, and waveform inputs.
- Quantized models from 18.6 MB to 1.55 MB with minimal accuracy loss and deployed them on **Arduino Nano**, **Raspberry Pico**, and **ESP32** hardware.
- Built a real-time edge AI prototype that captured audio, applied on-device preprocessing, and used Edge **TPU** inference to classify six respiratory diseases

Next.js Landing Page

Summer 2024

- Developed a **Next.js** web interface for a Minecraft community using **JavaScript**, **HTML**, and **Tailwind CSS**.
- Engineered a **RESTful API** in **JavaScript** for token-based verification with **PostgreSQL**.
- Implemented a **React** rich text editor that enables moderators to publish server announcements.
- Crafted a comprehensive **CI/CD** pipeline using **GitHub Actions** and **Argo CD**.

Kubernetes Cluster Management

Summer 2024

- Architected a high-availability **Kubernetes** cluster on dedicated bare metal infrastructure.
- Utilized **MetalLB**, **NGINX ingress controller**, and **HAProxy** to route and load balance cluster traffic.
- Deployed **Longhorn** for persistent volume provisioning and enforced **RBAC** policies to control storage access through containerized **SFTP** services.
- Employed **AWS S3** object storage to formulate redundant backups.
- Managed continuous delivery pipelines with **Argo CD** alongside **Argo CD** Image Updater.

TECHNICAL SKILLS

Languages & Platforms

Python, C++, Java, JavaScript, Typescript, Bash, HTML, Tailwind CSS, React, Node.js, Next.js

Infrastructure & Database Management

Kubernetes, Docker, AWS, Google Cloud Platform (GCP), PostgreSQL, MySQL, PL/SQL, GitHub, GitHub Actions, CI/CD, NGINX, Helm, Argo CD, HAProxy, MetalLB

Tools & Environment

Linux, Git, VS Code, IntelliJ IDEA, Docker Desktop, Postman