

Kyle Headley

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Software Engineer skilled in full-stack JavaScript and cloud-native development with strong DevOps and AI/LLM experience. Passionate about building scalable, high-quality systems in fast-paced teams.

Technical Skills:

- **Languages & Scripting:** JavaScript (ES6+), TypeScript, Python, Bash
 - **Frameworks, Tooling & Testing** React, Node.js, Express, LangChain/Graph, Tailwind, MUI, Jest, SuperTest
 - **AI/Cloud/DevOps:** OpenAI API, AWS (EC2, Lambda, S3), Docker, Terraform, Kubernetes, GitHub Actions, CI/CD
 - **Data & Auth:** MongoDB, PostgreSQL, MySQL, DynamoDB, Qdrant, Pinecone, GitHub OAuth & App
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Experience:

Full-Stack Engineer — OSLabs

2025 – Present

DevStack AI is an AI-powered tool for onboarding developers faster by enabling natural language search of codebases and docs. (Delivered production-ready MVP in May 2025).

- Designed and implemented a scalable semantic search pipeline using code parsing, vector embeddings, and OpenAI LLMs, enabling deep contextual understanding of large-scale codebases.
- Developed an intuitive, React-based user interface that surfaces traceable, file-linked answers to developer queries in natural language, helping new engineers navigate large codebases and significantly reducing average onboarding ramp-up time by an estimated 30%.
- Integrated GitHub OAuth with scoped permissions and multi-user workspace logic to support secure, scalable collaboration and simplified access management across multiple engineering teams and enterprise environments.
- Automated data ingestion from Git repositories (JavaScript, Python), reducing setup time and ensuring consistent indexing for AI-driven querying.
- Proposed and outlined a roadmap for LLM fine-tuning and evaluated enhancements like retrieval-augmented generation and function calling to reduce hallucinations by up to 40%.
- Tech Stack: React, Node.js/Express, Python microservices, MongoDB, Qdrant (vector DB), OpenAI API, AWS.

Software Engineer (Contract) — Nooxit

2024 - 2025

- Built and maintained internal web applications using React and Node.js to manage operational data, workflows, and system configuration, implementing responsive UIs, authentication, and role-based access control.
 - Developed back-end services and REST APIs in Node.js/Express to support these applications, handling data validation, business logic, and integration with cloud-hosted databases and third-party services.
 - Implemented AI-powered document and knowledge tools that ingest and process PDFs and other content, generate embeddings, and use LLMs to provide natural-language answers to user queries via a React front end.
 - Designed and deployed a fault-tolerant 3-tier web and database infrastructure on AWS (EC2, managed databases, S3), reducing deployment-related downtime and maintaining high availability for production environments.
 - Created automated CI/CD pipelines with GitHub Actions to build, test, and deploy Node/React services across multiple environments, cutting release time from hours to minutes and significantly reducing deployment errors.
 - Built event-driven workflows using AWS Lambda and SQS to replace manual operational tasks, enabling reliable background processing for user actions and system events without human intervention.
 - Containerized services with Docker and orchestrated them on Kubernetes in AWS, using Helm and Docker Compose to standardize environments and improve deployment consistency across development, staging, and production.
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Education

Codesmith – Advanced Residency for Software Engineering | Remote

2025– 2025

Level Up in Tech – Cloud & DevOps Training | Remote

2022 - 2023

Project-based, cohort-driven curriculum covering AWS services, serverless architectures, containerization (Docker, Kubernetes), Infrastructure as Code (Terraform), and CI/CD pipelines

Associate of Arts

Kingsborough Community College, Brooklyn, NY

Certifications

- AWS Developer Associate (2023)
- LPI Linux Essentials (2022)