






Contact

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Technical Skills

Languages and Frameworks

- HTML
- CSS (Sass)
- JavaScript (NodeJS)
- TypeScript (React, NextJS, Angular)
- Python (Flask, FastAPI)

Databases

- PostgreSQL
- MongoDB
- Redis

CI/CD

- Docker
- Kubernetes
- ArgoCD
- Ansible
- Jenkins

Security

- Auth protocols
- SSO integrations
- Vulnerability remediation

Artificial Intelligence

- LangChain (Python)
- Generative AI models
 - Anthropic
 - OpenAI

Katie Amaral

Software Engineer

www.katieamaral.com

Experienced full-stack software engineer currently building modern, accessible, and large-scale multimedia services for the largest academic library in the world.

Advocate for best practices in security, architecture design principles, and code quality. A motivated life-long learner committed to continuous career development.

Education

Boston University

Graduated 2015 GPA 4.0

Master of Science in Computer Information Systems IT Security

Experience

Harvard University

April 2019 - Present

Senior Software Engineer

Library Technology Services

- Front-End Development - Design responsive, accessible, user-friendly interfaces meeting or exceeding standards for library UX and accessibility
- Back-End Development - Build large-scale, performant, and secure backend services interconnected with REST APIs and message queues to support a large volume of requests for mission-critical applications serving patrons worldwide
- CI/CD - Automate workflows, orchestrate deployments, and manage application configurations and encrypted secrets
- Security - Write all software with secure coding practices such as encryption, session management, network security, input validation, parameterization, event logging, access controls, and more; build and integrate authentication and authorization services; scan applications and remediate security vulnerabilities
- Automated Testing - Write unit, integration, and performance tests and integrate into CI/CD pipeline
- Artificial Intelligence - Leverage generative AI models to modernize library discovery by enabling natural language interaction with catalog services

Broad Institute of Harvard and MIT

March 2015 - April 2019

Software Engineer

Broad Institute Technology Services

- Full-Stack Development - Designed and built custom web applications working in all levels of the tech stack including front-end, backend, databases, auth, monitoring, security, deployment, and maintenance
- Systems Integration - Integrated systems with web service APIs
- Systems Administration - Linux and Windows server administration
- QA - Created QA test plans based on requirements, wrote automated tests
- CI/CD - Automated software build and deployment workflows
- IT Automation - Automated IT tasks with scripts and scheduled jobs
- IT Security - Analyzed systems for vulnerabilities, implemented controls and patches, ensured compliance with regulations
- ServiceNow SaaS - Developed custom apps in the ServiceNow platform