

# Keaton Martin

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## EDUCATION

### University of Kentucky

*B.S. in Computer Science; Cumulative GPA: 4.0*

Lexington, KY

August 2021 – May 2025

## EXPERIENCE

### Backend Software Engineering Intern

84.51°

May 2023 - August 2023

Cincinnati, OH

- Simplified a system architecture by rewriting an existing Java service from scratch in Go.
- Increased throughput of a service by more than a factor of 2 by parallelizing uploads to a content management system
- Implemented communication between services with both REST and event-driven messaging-based architectures using RabbitMQ
- Sped up development speed by writing a GitHub Workflow to automatically fetch the latest build tag to deploy to a Kubernetes cluster.

### CS216 Undergraduate Lab Assistant

*University of Kentucky*

August 2023 - Present

Lexington, KY

- Lead and taught a lab section of CS216, Introduction to Software Engineering Techniques
- Responsible for holding office hours, fielding student questions, and grading assignments.

### MLH Prep Fellow

*Major League Hacking*

July 2022 - August 2022

Remote

- Participated in a month-long program during which students collaborated in short hackathon sprints to develop an interactive weather map using React.

## PROJECTS

### UKY Dining Hall App | *Python, React Native, AWS Lambda*

August 2022 – December 2022

- Enabled students at the University of Kentucky to view dining hall menus on their phone by developing a mobile-app that displays breakfast, lunch, and dinner.
- Reduced cost dramatically by adding a caching layer in front of the back-end using AWS CloudFront
- Wrote and deployed a RESTful API on a serverless architecture using AWS Lambda and API Gateway.

### Cross-stitch Pattern Generator | *React Native, Python, Machine Learning, Git*

April 2023

- Built a full-stack mobile app that uses machine learning to generate cross-stitch patterns.
- Deployed an endpoint on Google Cloud Functions that trains a k-means clustering model on an image in the request payload.
- Received first place at CatHacks, an annual hackathon at the University of Kentucky.

### Golox | *Go*

August 2023

- Wrote a tree-walk interpreter for Lox, a toy programming language, entirely in Go
- Learned how to implement a lexer, recursive-descent parser, scoping, control flow, and other programming constructs.

## TECHNICAL SKILLS

**Languages:** Go, Python, Java, C, C++, JavaScript, HTML/CSS

**Frameworks:** Spring/Spring Boot, FastAPI, React/React Native, Node.js, Flask, Angular

**Developer Tools:** Git, Unix, Kubernetes, Docker, MongoDB,  $\text{\LaTeX}$ , GitHub Actions, Azure

**Libraries:** pandas, NumPy, Matplotlib, scikit-learn, Mockito, JUnit

## RELEVANT COURSEWORK

Graduate Data Structures and Algorithms, Graph Theory, Artificial Intelligence, Databases, Networking, Linear Algebra, Data Science, Automata Theory, Computer Graphics, Discrete Math, Differential Equations, Systems Programming