Zakery Collins

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EDUCATION

M.S. Computer Science May 2025
Arizona State University, Tempe, AZ 3.3 GPA

B.S. Computer Science May 2024
Arizona State University, Tempe, AZ 3.56 GPA

Relevant Coursework: Master's Thesis, Machine Learning, Data Mining, Cloud Computing, Quantum Computing, Mobile Computing, Engineering Blockchain, Knowledge Representation and Reasoning, Computer Graphics

TECHNICAL SKILLS

Programming Languages: Go, Java, C, C++, Cuda, C#, Python, SQL, Scheme, Prolog, JavaFX, Kotlin, HTML, CSS, Javascript
Packages and Programs: Jaeger, Prometheus, Grafana, Docker, Pivotal Cloud Foundry, GitHub, Cockroach DB, SQLite, AWS
Design and Modeling Tools: Adobe Creative Cloud, Astah, MATLAB, Microsoft Office, Unity Engine

PROFESSIONAL EXPERIENCE

Software Engineer Intern – Intel Corporation June 2024 – Aug 2024

- Developed and optimized models for a computer vision project using Python
- Optimized Docker containers to work better on lower memory and lower computing power systems
- Reduced technical debt relating to memory usage and incorrect Docker practices

Software Engineer Intern – The Home Depot May 2022 – Aug 2022, May 2023 – Aug 2023

- Developed a cloud-hosted RESTful API in Golang to authorize check payments making the system faster, more secure, and more flexible with downstream/upstream changes
- Developed a cloud-hosted RESTful API in Golang to receive and store PIN pad information in a Cockroach DB for use by IT field captains to track every PIN pad in every Home Depot store
- Restricted access to my system to authorized users using a token system

Sales Associate – The Home Depot June 2021 – Dec 2023, Dec 2024 – Current

ACADEMIC PROJECTS

GPU-Accelerated Cloud Computing, *Master's Thesis* Fall 2024 – Spring 2025

- Developed multiple programs to demonstrate the benefits of using GPU-Accelerated code including machine learning tasks, image processing, and service-oriented computing
- Found ways to optimize the code for faster speeds and to best fit into NVIDIA's Cuda architecture
- Created intelligent autoscaling rules for cloud computing use cases by monitoring request queues and GPU-utilization

Machine Learning House Price Prediction, *Class Project* Spring 2024

- Developed a machine learning model that uses a random forest model and over 70 different features of a house to categorize each house into what price band it should sell for
- Further developed a linear regression model for each price band to give a more specific prediction
- Performed data cleaning and feature selection to make the model more accurate

Personal Website, *Personal Project* Fall 2024

- Developed a website to show off my resume and skills
- Hosted the website on Github Pages with a custom domain at zakerycollins.com

Facial Recognition Cloud Computing Project, *Class Project* Fall 2024

- Developed an AWS EC2 instance to handle incoming requests to determine who is in a certain picture
- Added a web tier instance to handle requests and scale my application tier instances automatically

Android Tic-Tac-Toe Game, *Class Project* Fall 2021

- Developed an app for Android phones to store health information such as symptoms, heart rate, and respiratory rate in a database for symptom tracking

AWARDS

- Dean's List in Ira A. Fulton School of Engineering for Fall 2021, Spring 2022, and Fall 2023
- Seal of biliteracy in French for speaking, listening, and writing

EXTRACURRICULAR EXPERIENCE

Sun Devil Chess Club August 2021 - Present
ASU Esports Association August 2021 - Present