James Kocak

(980) 800-6120 | www.linkedin.com/in/james-kocak/ | jamkocak88@gmail.com | github.com/Jokocak

SUMMARY

Computer Science student at NC State University experienced in software engineering and game engine development. Proficient in Java, C++, and Python. Seeking software engineering roles to apply and expand my skills.

EDUCATION

North Carolina State University | Raleigh, NC — Anticipated May 2025
Bachelor of Science in Computer Science — GPA: 3.6/4.0, Dean's List

Relevant Courses: Data Structures & Algorithms, Database Management Systems, Game Engine Foundations, Software Engineering, Operating Systems, Computer Graphics, C/Software Tools, Intro to Artificial Intelligence, Interactive Game Design, Python Applications

SKILLS

Languages:	Java, Python, C, C++, C#, SQL
Web Technologies:	HTML, CSS, JavaScript, AngularJS, Apache Maven, Apache Tomcat
Databases:	MySQL, SimpleDB
Libraries:	NumPy (Python), Pandas (Python), mathplotlib (Python), STL (C++)
Frameworks:	REST, Spring, Hibernate, JUnit
Operating Systems:	Windows, Linux, MacOS
Tools:	Git/GitHub, Jenkins, GitHub Actions, GDB, Valgrind, Makefile, CMake, Eclipse, Visual Studio, VSCode

PROJECTS

Coffee Maker Full-Stack Project | *Software Engineering* — January 2024 - April 2024

- Led a team in developing a full-stack coffee ordering application, leveraging collaboration and task delegation to maximize productivity, resulting in a platform capable of managing thousands of users, orders, and recipes
- Implemented a robust database structure using MySQL to store essential project data, such as users, orders, and recipes, ensuring scalable data retrieval, consistency, and efficient data management
- Developed seamless frontend-backend communication using REST APIs, enhancing system performance and user experience through real-time order updates and efficient data exchange

Custom C++ Game Engine Using SDL | *Game Engine Foundations* — August 2024 - Present

- Built a custom game engine in C++ leveraging SDL for graphics rendering, input management, and audio processing, creating a versatile foundation for game projects
- Engineered a custom data structure for an Entity-Component System (ECS) to optimize memory usage and enhance performance, resulting in efficient game state updates and improved resource management
- Designed and implemented a modular architecture using CMake for automated build processes, facilitating maintainability, code reusability, and streamlined project configuration

Data Structure Optimization Project | *Data Structures & Algorithms* — January 2023 - April 2023

- Designed and implemented a Java-based solution to tackle a version of the shortest path problem, leveraging algorithmic analysis to optimize route-finding performance
- Applied Dijkstra's algorithm using an adjacency list representation, achieving O((V + E) * log(V)) time complexity, enhancing the solution's efficiency for large-scale graph inputs
- Conducted testing with JUnit and Jenkins, achieving 90% overall code coverage, ensuring software reliability and minimizing potential defects

Work Experience

Target | Front of Store Attendant — December 2020 - December 2022

- Resolved customer issues by leveraging effective communication and problem-solving skills in a fast-paced retail setting, resulting in faster service times and improved customer satisfaction during peak hours
- Delivered exceptional customer service using detailed knowledge of store operations and products, leading to consistent positive feedback from management