Shah Qureshi

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SKILLS

Languages: Java, Python, Javascript, C, C++, SQL, HTML/CSS, Verilog

Tools & Concepts: OOP, REST APIs, SQLite, Firebase, FFmpeg, Tailwind CSS, Git, OpenAI API, React.js, Next.js, LLMs, Agile

EXPERIENCE

Veeder-Root Simsbury, CT

Software Engineering Intern

May 2024 - August 2024

- Enhanced TLS-450 security by auditing SSH configurations and replacing 14 insecure algorithms with modern, industry-standard alternatives.
- Enforced encrypted HTTPS connections on TLS-450 Web Interface cookies, ensuring secure data transmission.
- Increased session ID security by implementing a CSPRNG, raising entropy to 117 bits and passing validation with Burp Suite.
- Standardized credential input validation across the GUI and WebUI by implementing RegEx tied to the system's SQLite backend.

Lavner Education Houston, TX

IT Intern

June 2023 - August 2023

- Designed and instructed IT-related concepts including machine learning, robotics, and programming to camp attendees, sparking interest in STEM and problem-solving.
- Utilized web-based AI tools such as "Teachable Machine" and OpenAI to effectively teach machine learning concepts. Instructed in Python, Java, and Scratch courses to enhance attendees' coding skills.
- Facilitated camp attendees in creating video games and apps using MIT App Inventor and GameMaker, fostering creativity and technical expertise.

Cloudaro.io Enfield, CT

Engineering Intern May 2021 - August 2021

- Assisted in engineering database search algorithm using Python, cutting loading times for each query by 75%.
- Facilitated front-end implementation of product using HTML, and CSS.
- Streamlined search process, increasing efficiency and accuracy by 35%; enhanced overall product usability with intuitive, user-friendly UI design.
- Designed and implemented new automated testing process to ensure code accuracy and efficiency. Developed comprehensive user guides, cutting customer onboarding times by 90%.

PROJECTS

Ticketmaster App Clone in Android

shahqureshi.com/projects • April 2025 - May 2025

- Developed an Android app that allows users to search for local events using the Ticketmaster API, with real-time location-based filtering via Google Maps SDK.
- Implemented user authentication and event-saving functionality using Firebase Authentication and Firestore Database.
- Built the frontend using Android's native view system, featuring dynamic event cards and interactive map integration.

ROS-Based Robot Teleoperation API

shahqureshi.com/projects • January 2025 - May 2025

- Engineered a ROS2-based API for the ABB IRB 1200 robot using MoveIt, laying the foundation for a unified robotic control interface across the CCSU Robotics Lab's robot systems.
- Upgraded outdated frameworks to ROS2 and implemented collision-detection and motion planning with MoveIt.
- Set up and networked a digital twin environment with RobotStudio.

Animal Simulation Game

shahqureshi.com/projects • October 2024 - December 2024

- Engineered a Java-based ecosystem simulation using LibGDX framework, implementing multiple design patterns (Observer, State, Command, Factory, Singleton, Decorator) to create a maintainable and extensible architecture.
- Implemented runtime controls (play/pause, speed), dynamic creature loading, and behavior logic (feeding, movement).
- Worked in an Agile team with weekly sprints and code reviews, ensuring continuous delivery and refinement of gameplay features.

LLM Automated Documentation

shahqureshi.com/projects • August 2024 - December 2024

- Developed a full-stack, Python-based desktop application that automatically converts instructional videos into technical documentation using OpenAI's GPT and Whisper APIs, reducing manual documentation time by automating the process.
- Engineered video processing pipeline using FFmpeg for audio extraction and frame capture.
- Integrated OpenAI's Whisper API for accurate speech-to-text transcription and GPT for converting raw transcripts into structured technical documentation.
- Built HTML documentation generator with responsive design using Tailwind CSS, automatically incorporating extracted video keyframes.

EDUCATION

Central Connecticut State University, New Britain, CT

May 2025