Sahir Hameed

Austin, Texas | sahirhameed@utexas.edu | sahirhameed.com | linkedin.com/in/sahirhameed | github.com/SahirHameed

Education

University of Texas at Austin Expected Graduation: May 2026

Bachelor of Science in Computer Science; Minor in Business

Bachelor of Science and Arts in Mathematics

- **Relevant Coursework:** Data Structures, Algorithms, Computer Architecture, Operating Systems, Machine Learning, Software Engineering, Linear Algebra, Probability Theory, Abstract Algebra

Skills

Languages: Java, Python, C/C++, SQL, JavaScript (React, Next.js, Angular), Ruby, Swift
Software: AWS, Docker, TensorFlow, JupyterNotebook, Git, Bash, GCP, Langchain, Azure

Experience

Skunkworks Technical Lead August 2024 – Present

Texas Rocket Engineering Lab *Austin, Texas*

- Led a team of six to design control systems for rocket roll stabilization using Reaction Control System (RCS) thrusters.
- Conducted research on vehicle dynamics and control, addressing challenges such as computational latency and mechanical linkages, while designing and testing systems to optimize rocket trajectory and stability.

Software Engineering Fellow July 2024 – September 2024

Headstarter *Fort Worth, Texas*

- Worked on five AI-focused projects, strengthening my skills in Python and JavaScript while applying concepts to real-world challenges and receiving direct feedback from experienced engineers.
- Collaborated with diverse teams in five hackathons, building AI-driven solutions under tight deadlines.

Software Engineering Intern May 2024 – August 2024

Medex Surgical *Fort Worth, Texas*

- Developed and deployed a VBA and JavaScript-based inventory system that eliminated manual logging and improved data accuracy by 30%, optimizing workflow efficiency across the company.
- Authored technical documentation that streamlined system adoption and improved cross-team collaboration.

Software Engineering Tutor May 2024 – August 2024

ICode *Southlake, Texas*

- Facilitated STEM education for 20+ student classrooms, adapting complex technical concepts in Java, Python, and HTML to meet individual learning needs, improving student performance and retention.
- Identified and resolved a critical curriculum issue by adapting lesson plans, maintaining high student engagement, which prevented revenue loss.

Research Fellow December 2023 – Present

Autonomous Robotics Laboratory *Austin, Texas*

- Led the development of embedded C++ and Python software for autonomous navigation, optimizing path-finding algorithms to reduce manual programming effort by 50%, driving innovation in team strategy.
- Utilized test equipment and troubleshooting techniques to enhance system reliability and performance, applying knowledge of the full software development lifecycle during deployment.

Projects

Web Page Summarizer | *JavaScript, OpenAI API* | Github August 2024

- Designed and developed a Chrome extension leveraging OpenAI's GPT-3.5 Turbo to generate concise web page summaries within 5 seconds, significantly improving user productivity and information consumption.
- Optimized performance by minimizing load times and reducing latency in API calls, improving overall user experience and system efficiency.
- Engineered a user-friendly, modular UI for OpenAI API key input, streamlining user interaction and enhancing accessibility for seamless feature integration.

Pantry Management System | *JavaScript (Next.js), Firebase, LLaMA* | Github July 2024 – August 2024

- Constructed a full-stack pantry management application using Next.js and Firebase, enabling users to efficiently track inventory with real-time updates and secure authentication, enhancing data accuracy and user engagement.
- Implemented LLaMA AI to provide intelligent recipe suggestions based on pantry inventory, delivering a personalized user experience and improving recommendation accuracy by 50%.
- Crafted a user-friendly UI that optimizes interaction across all devices, ensuring seamless data synchronization.

Recycle Detection Software | *Python (YOLO-8), OpenAI (GPT-4)* | Github March 2023 – April 2023

- Developed a recycling detection algorithm by integrating YOLO-8, OpenCV, and GPT-4 to determine what materials are recyclable alongside a team with three peers.
- Led system testing using Azure Kinect Video Stream, successfully validating real-time object classification and achieving a detection accuracy of 78%.
- Managed and tracked weekly project milestones through a shared calendar, ensuring timely progress and fostering a culture of effective teamwork and accountability.