Gabriel Carson

Description: *Computer Science student with experience in Cloud at UTK looking for internship and full-time positions.*

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EXPERIENCE

– WORKPLACE EXPERIENCE

Oak Ridge National Lab (CRID) — Intern, *Jun '24 - Current*

- Spearheaded the integration of natural language queries for the Energy Threat Analysis Center (ETAC) Data Platform using Azure AI Search visualized in PowerBI, streamlining data accessibility for higher level users analyzing threats to the energy grid.
- Developed and enforced data classification and masking protocols, ensuring secure access to sensitive information, limited to administrative roles.
- Conducted in-depth evaluations of technologies based on cost, efficiency, and scalability, refining ETAC's tech stack for future growth in anomaly detection.
- Contributed to cutting-edge research in cybersecurity education, focusing on the gamification of learning to enhance platform effectiveness.

– PERSONAL PROJECTS

ClassMate — *Azure SQL, Express.js, React.js, Node.js (SERN)*

- Cloud Security & Backend Design: Utilized Azure SQL for secure cloud database management, and developed robust and secure backend infrastructure.
- Middleware Integration & Agile Methodologies: Ensured secure communication and data flow between front-end and back-end components, applying iterative development practices for secure and efficient project management.

– COURSE PROJECTS

Threaded Chat Server — *C (Systems Programming)*

- Developed a multi-threaded chat server using pthreads, enabling real-time communication among multiple clients in various chat rooms.
- Designed the server to support any number of clients and chat rooms, showcasing scalability and flexibility in network programming.
- Leveraged advanced synchronization techniques to coordinate interactions between client and chat room threads, enhancing server performance and reliability.

Shell — *C (Systems Programming)*

- Developed a command-line shell, similar to sh/bash/csh. Implemented features such as redirection, piping between commands, and handling multiple child processes. Enhanced shell functionality by incorporating advanced process management techniques to efficiently handle command execution.

SKILLS

Languages: C++, C, JavaScript, Python, SQL

Technologies: Azure, Azure Government, Purview, Synapse, GitLab/GitHub

Concepts: Cloud Security, Containerization, R&D, Data processing, Cloud AI infrastructure,

LEADERSHIP EXPERIENCE

DC FITNESS — *Manager, Gray, TN — (Feb 2019 - Jan 2022)*

- Increased active memberships through leading a security system migration and implementing 24/7 access for members.

SENIOR DESIGN — Team Leader (Aug '24 - May '25)

- Leading a multidisciplinary team of 5 in the development of an AI-powered shopping assistant chatbot for Capgemini.
- Facilitating team collaboration and communication to meet project milestones effectively.

EDUCATION

University of Tennessee, Knoxville — *Bachelors*

Jan 2022 - Dec 2025, Computer Science

GPA: 3.4/4.0