# Gabriel Carson

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## EDUCATION

**The University of Tennessee, Knoxville**, Tickle College of Engineering  Knoxville, Tennessee
*Bachelor of Science in Computer Science*  Graduation: December 2025
Major: *Computer Science*  GPA: 3.5

## PROFESSIONAL EXPERIENCE

**Oak Ridge National Laboratory (CRID)**  Oak Ridge, Tennessee
*Cloud Engineer Intern*  May 2024 – May 2025
- Developed natural language querying capabilities for data analytics using Azure AI Search.
- Designed and implemented data classification and masking for PII using Microsoft Purview and Azure Functions.
- Engineered and automated secure VNet deployments of Azure Data Explorer, Synapse Analytics, and Data Factory with Azure Bastion using OpenTofu/Terraform, capable of processing multi-terabyte-per-second real-time data ingestion for the ETAC Data Platform.
- Participated in weekly code reviews and Agile stand-ups to validate that infrastructure deployments met FedRAMP requirements and integrated into the enterprise Data Platform.

## RELEVANT PROJECTS

**ClassMate**
*Software Engineering (COSC 340)*  Spring 2024
- Designed and implemented a Node.js backend with an Azure SQL database, ensuring secure and efficient storage of student reviews.
- Integrated Express.js middleware to handle API requests for fetching, submitting, and updating course reviews.
- Deployed a Dockerized development environment and planned for Azure cloud hosting to scale the application.
- Collaborated with a team of four developers, conducting weekly code reviews and sprints to ensure agile project progression.

**SmartCart**
*GenAI Retail Assistant*  Spring 2025
- Developed a Flask + PostgreSQL web app utilizing OpenAI Assistants for LLM functionality and Azure for infrastructure.
- Engineered chat endpoints that call OpenAI's Assistants API, performing RAG over inventory data to power real-time responses on price, stock levels, aisle navigation, and recipe suggestions.
- Containerized the app with Docker and Gunicorn, then deployed a multi-container setup to Azure App Service using images in Azure Container Registry and secrets managed in Azure Key Vault.
- Enabled CI/CD with Github Actions to update quickly upon changes.

## LEADERSHIP

**Project Leader**
*Senior Design (COSC 402)*  Fall 2024 - Spring  2025
- Lead a team of computer science and electrical engineering students in developing a full stack web app.
- Oversaw project design, implementation, branding, and team task delegation allowing all members to make an impact.
- Communicated team goals and updates to industry advisors (Capgemini USA) in weekly stand-ups.
- Ensured project completion within scope while following agile development methodologies over two semesters.

## SKILLS

Python, C#, SQL • Kubernetes, Docker • Terraform/OpenTofu • Bash, Git, CI/CD • Infrastructure, Development, Security