

PROFESSIONAL EXPERIENCE

GEICO TECH

Observability Engineer, Remote

March 2025 – Present

- Extend and maintain a distributed internal observability platform built with Terraform, Azure, and Grafana's LGTM stack, providing a unified and reliable solution for custom monitoring, logging, and metric workflows across the company.
- Re-architected the in-house observability platform's telemetry ingestion pipeline to leverage Kafka, OpenTelemetry, and ClickHouse, resolving critical log drop issues, enabling advanced analytics, and unlocking customer access to live telemetry.
- Driving a phased production rollout for the new architecture by implementing multi-tenancy, incorporating strategies for data reliability, optimizing systems for high-ingest workloads, integrating with existing architecture, and onboarding first customers.

Site Reliability Engineer, Remote

July 2024 – March 2025

- Led a large-scale migration of telemetry assets into the in-house observability platform from a third-party tool. Designed and implemented automated workflows for asset transformation. Ultimately, this initiative helped eliminate more than \$12 million in annual enterprise licensing costs and reduced operational complexity by consolidating observability assets.
- Designed a React web application to provide VP-level visibility into service-level indicators across organizational units, enabling a unified, real-time view of application health, and supporting strategic executive-level decision-making.
- Contributed to tooling and automation for storage fleet management and performance monitoring.

ACCENTURE

Tech Intern, Chicago, IL

June 2023 – August 2023

- Led the end-to-end development of an internal website to showcase Operations Studio services and drive engagement from downstream teams, collaborating with key stakeholders throughout to ensure alignment and enhance visibility.
- Contributed to strategic hackathon proposals to inspire innovative, client-aligned AI solutions under aggressive business timelines.

AMADOR BIOSCIENCE

Software Developer Intern, Ann Arbor, MI

May 2022 – August 2022

- Led a team of three interns in the full-stack development of an internal analysis tool using R Shiny and C++, streamlining the production of tables, listings, and figures, and boosting operational efficiency.

Machine Learning Intern, Pleasanton, CA

July 2021 – August 2021

- Trained machine learning models in R to analyze the relationship between drug efficacy and subject characteristics.

EDUCATION

VANDERBILT UNIVERSITY

Nashville, TN

- **Bachelor of Science in Computer Science, Bachelor of Arts in Economics, cum laude**
- Minor in Data Science

August 2020 – May 2024

GPA: 3.9/4.0

SKILLS

Core Development: Python, Go, C++, Bash, JavaScript, SQL, Git, React, GraphQL, HTML/CSS, R, Figma, LangChain, ROS2
Infra/DevOps: Kubernetes, Docker, Linux, Azure, Terraform, Apache Kafka, ClickHouse, OpenTelemetry, Grafana, Prometheus

OTHER EXPERIENCE

VANDYHACKS HACKATHON CLUB

Design Board Member

February 2022 – Present

- Led design efforts for Vanderbilt's annual collegiate hackathon websites, cross-year mobile site, and on-site event installations.

VANDERBILT UNIVERSITY DIGITAL SYSTEMS

Teaching Assistant

August 2021 – May 2022

- Mentored 85 students in logic circuits, state machines, and assembly. Graded homework and exams, supported Q&A platform.

VANDERBILT ROBOTICS CLUB

Camera Subteam Member

January 2021 – December 2021

- Assisted the programming team for Vanderbilt's robot entry to NASA's Lunabotics Challenge using ROS2.

HONORS & CERTIFICATES

Vanderbilt School of Engineering Dean's List (8 semesters), Tau Beta Pi Engineering Honor Society, NVIDIA-Certified Associate: Generative AI LLMs, NVIDIA: Building LLM Applications with Prompt Engineering

PERSONAL PROJECTS

PRODUCT REVIEW LABELLING

2025

- Created a Python tool with LangChain and small instruction-tuned LLMs to extract names, store locations, and sentiment from product reviews using prompt engineering alone. The script returns structured JSON outputs and supports batch processing, enabling fast, low-cost NLP analysis without model fine-tuning.

UNIVERSAL LESION SEGMENTATION

2024

- Led a comparative study of state-of-the-art segmentation models (nnUNetv2, SwinUNet, DeepLabV3+, Medical Transformer, TransUNet) for 3D lesion segmentation across diverse tissue types. Identified TransUNet as the most robust candidate, achieving a Dice score of 0.87 on bone lesions. Tackled challenges with overfitting, memory constraints, and model generalization using data augmentation, architecture adaptation, and performance diagnostics.

PEER-TO-PEER CHAT

2023

- Developed file transfer features for a P2P chat system over TCP as a comprehensive practice for socket programming. Each peer operates as both client and server, with symmetric encryption securing communication. Validated using Mininet to simulate network conditions. Included a lightweight JS/SASS frontend for user interaction.

VOTER REGISTRATION SYSTEM

2023

- Implemented an MVP web application for managing voter registration data using PHP and MySQL. Designed and implemented a normalized relational database with support for ACID-compliant transactions and secure query handling through views, stored procedures, triggers, and transactions. Connected a PHP frontend that allows administrators to register, update, query, and analyze voter registration data.

NEWS SCRAPER CLI

2023

- Created a Python package that uses Selenium and robust scraping logic to automate web browsing and scrape article content from a variety of news sites. The package is designed to be easily extensible, allowing users to add new sites and customize scraping behavior. Includes a command-line interface for easy use and can be integrated into larger data analysis pipelines.

SALES FORECASTING WITH TIME SERIES ML

2023

- Built a time series forecasting model to predict daily product-level sales across 56 stores using multivariate data from a Kaggle competition. Merged and cleaned disparate datasets, imputing missing values via LOESS. Engineered temporal and categorical features to capture weekly seasonality and promotion effects. Explored scalable modeling across store-product pairs and evaluated extensions like PCA and RNNs.

CHESS AI

2022

- Implemented a custom JavaScript chess engine, affectionately named “ScuffedFish”, using the minimax algorithm and alpha-beta pruning. Evaluated the performance of different utility functions in a technical report. Determined that the addition of positional utility increases engine performance as well as the occurrence of standard, player-like chess openings.