

SAIMANAS (MANAS) REDDY

Dallas, TX | (214) 504-4327 | manasr224@gmail.com | manas.ironveil.xyz | linkedin.com/in/saimanas-reddy | github.com/Nu11ified

EXPERIENCE

Machine Learning Engineer

Aug 2025 - Present

MicroAI

Dallas, TX

- Analyze live manufacturing and equipment telemetry to distinguish data-quality issues from genuine process changes and prioritize signals requiring follow-up.
- Enhanced a semi-supervised anomaly-detection pipeline with additional analytical parameters, improving sensor visibility and reducing false-positive alerts by 25%.
- Built a Python- and Go-based framework for machine data and analytical workflows that translates anomaly outputs for nontechnical users, reducing query-resolution time by 40%.
- Developed a lightweight C++ computer-vision engine for edge devices that performs real-time anomaly detection with latency below 30 ms.
- Partner with engineering and operational stakeholders to document assumptions, investigate ambiguous behavior, and determine practical next steps under time and data constraints.

Research Assistant

Aug 2023 - Apr 2025

Baylor University

Waco, TX

- Processed and analyzed next-generation sequencing data using reproducible workflows, traceable outputs, and consistent quality-control practices.
- Conducted genetic-variant analysis and communicated findings through Matplotlib visualizations and Power BI dashboards for interdisciplinary stakeholders.
- Investigated unexpected results, pipeline failures, and data-quality discrepancies with laboratory members to identify causes and preserve data integrity.
- Wrote and maintained Python automation for preprocessing and analysis, reducing repetitive manual work and improving consistency across research runs.

PROJECTS

GitForge - Platform Engineering and Audit Controls

2026

Independent Project

Dallas, TX

- Built a multi-tenant Git hosting platform with role-based access control, audit logging, protected-resource enforcement, and tenant-isolated storage.
- Designed traceable workflows for permissions, code access, review activity, CI/CD execution, object storage, webhooks, and administrative actions.

ScalerDB - Concurrent Systems and Data Integrity

2026

Independent Project

Dallas, TX

- Built a multithreaded in-memory database in C++23 with schema validation, type-safe storage, read-write locking, and controlled disk persistence.
- Created more than 30 automated correctness and performance benchmarks to test concurrent behavior, persistence integrity, and failure-prone edge cases under load.

picochat + candle-rocmm - Rust LLM Training and ROCm Backend

2026

Independent Project

Dallas, TX

- Built a Rust language-model framework covering tokenizer training, pretraining, supervised fine-tuning, reinforcement learning, and interactive inference.
- Integrated candle-rocmm as a pinned submodule to supply the AMD ROCm/HIP backend for the picochat workflow.

Analytical Portfolio - Research, Risk, and Decision Support

2026

Independent Work

Dallas, TX

- Developed decision-oriented work on travel risk, incident triage, quantitative research, and regional security, moving from source collection to actionable recommendations.
- Combined structured research methods, source evaluation, data visualization, and concise writing across political science and operations-oriented topics.

EDUCATION

Bachelor of Arts, Political Science; Minor in Reasoning and Analysis

May 2025

Baylor University

Waco, TX

- Relevant coursework: Political Science Research Methods, Terrorism, International Law, Government and Politics of the Asia-Pacific Region, Criminology, Logic, and Model United Nations.
- Leadership: President, Baylor Kendo Club; Historian, Baylor Association for Information Systems. Certification: University of Michigan Python 3 Programming Specialization.

TECHNICAL SKILLS

Programming: Python, C++, Go, SQL, TypeScript, JavaScript

Engineering: Machine learning systems, anomaly detection, computer vision, data pipelines, PostgreSQL, access controls, audit logging

Analysis and operations: Research methods, project coordination, data visualization, root-cause analysis, Power BI, Matplotlib, Microsoft Excel, Git