

Gohith Reddy

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EDUCATION

University of Texas at San Antonio

Bachelor of Science in Computer Science

San Antonio, TX

Aug. 2024 – Aug 2026

EXPERIENCE

Undergraduate Research Assistant

Neuromorphic Artificial Intelligence Lab

Oct 2025 – Present

San Antonio, TX

- Trained **computer vision** model on a LoCoBot to recognize objects, and then place them in a corresponding box.
- Trained **Spiking Neural Networks** and Liquid State Machines on benchmark datasets
- Designed and built a custom language and **compiler** for reservoir computing

Coding Instructor

Coding4Youth

Sept 2025 – Dec 2025

Remote

- Taught programming to students ages 7–16 across multiple languages, including Scratch, Java, and Roblox Lua
- Instructed students up to 7 days per week, managing 1–3 hour sessions with consistent engagement and retention
- Designed and implemented structured lesson plans to build foundational programming and problem-solving skills

AI Intern

Planck AI

July 2025 – Sept 2025

Remote

- Finetuned **llama3.2-3B** in **PyTorch** to accurately compare Indian tax returns
- Extracted malformed data in csvs, Excel sheets, and PDFs
- Collaborated to identify 83% of mismatches in taxes

AI Intern

Straight Edge Technology

Feb 2024 – May 2024

San Antonio, TX

- Trained an AI with **TensorFlow** to determine how long an IT ticket takes to complete to assist the help desk. Predictions are accurate within ± 5 minutes
- Created an Information Retrieval system with 77% accuracy that matched tickets with relevant documentation to speed up ticket resolution

Systems And Development Intern

Straight Edge Technology

June 2023 – Aug 2023

San Antonio, TX

- Coded interactive map that integrated with internal tools to show client's locations using Bing Maps API and **Flask**
- Developed software with QuickBooks API to show allocated hours, and determines employee utilization to assist with setting help desk employees' required utilization percentage.

PROJECTS

Credit Card Fraud Detection | *PyTorch, IEEE-CIS*

April 2026

- Built and trained an FT-Transformer fraud detection model on IEEE-CIS data (590K+ labeled transactions, 400+ raw features).
- Achieved ROC-AUC 0.838 on held-out test data with 0.898 recall, and saved reproducible inference artifacts

DataStar Galactica | *Python, MySQL, Data Engineering*

Feb 2026

- Built Python pipelines to clean, transform, and load large-scale astronomical datasets into structured SQL tables
- Designed and implemented a **MySQL** database schema for efficient querying of 1M+ stellar and planetary relationships
- Resolved complex entity matching across inconsistent naming conventions and multi-star host systems

Worldle Solver | *Java, JavaFX, Information Theory*

Dec 2025

- Developed a desktop application with JavaFX supporting both gameplay and automated solving of Wordle
- Implemented an entropy-based solving algorithm grounded in information theory to maximize guess efficiency
- Combined algorithmic optimization with user-friendly UI for interactive gameplay and analysis

- Puzzle** | *Next.js, React, Web Development* Nov 2025
- Built a web-based puzzle platform combining riddles with dynamic ciphertext encoding challenges
 - Designed interactive UI using React/Next.js for seamless gameplay experience
- Embedded E-Ink Card** | *ATmega328P, Arduino, Python, Embedded Systems* Oct 2025
- Designed and built a credit card-sized embedded system using an ATmega328P microcontroller and e-ink display
 - Debugged low-level hardware issues including clock requirements, bootloader configuration, and communication
 - Programmed microcontrollers via custom ICSP setup using a Raspberry Pi Pico, avoiding dedicated hardware programmers
- Real-Time Speech Translation App** | *Flask, Cloudflare Workers, APIs* Oct 2025
- Developed a real-time speech translation pipeline: Speech-to-Text → Translation → Text-to-Speech
 - Integrated backend services using Flask and edge computing via Cloudflare Workers
 - Streamed live transcription and periodically sent data to translation APIs for near real-time output
- Personal Website** | *React, Docker, Apache2, MailCow* July 2025
- Self-hosting a website dedicated to my interests and portfolio
 - Hosts a variety of web tools that are used daily including an email server, blog, and project listing
- Discord Bot** | *Python, Raspberry Pi, SSH, SQLite, NLG* Apr 2025
- Built a user registration system linking Discord accounts to Minecraft usernames using **SQLite**
 - Experimented with **natural language generation (NLG)** to simulate chat responses based on past messages
- Twitter Data Scraper** | *Python, Selenium, BeautifulSoup, Excel* Feb 2025
- Built a web scraper to extract tweet content and metadata directly from Twitter user profiles using Selenium and BeautifulSoup
 - Collected structured data including timestamps, engagement metrics, and tweet text for downstream analysis
- Stock Market Prediction** | *Tensorflow, Web Scraping, Fourier Analysis* Dec 2024
- Trained AI using **Tensorflow** using price data and **scraped** articles from NYT and TheGuardian
 - Predicts whether tomorrow's price will be higher or lower with 70% accuracy
- Minecraft Plugin and Server Hosting** | *Java, Spigot, Linux Hosting, Homelab, Zapier* Apr 2024
- Developed custom plugins modifying AI/pathfinding and gameplay systems
 - Maintained production multiplayer server for 4+ years with 10 users and stable performance
 - Diagnosed and resolved memory leaks and performance bottlenecks caused by misconfigured or inefficient plugins
- Computer Cluster** | *Distributed Training, Parallel Processing, Tensorflow, Pytorch, Wazuh* Feb 2024
- Clustered 3 GPU desktops together to decrease training times by about 50% in both **TensorFlow** and **PyTorch**
 - Hosts personal website, email server, SIEM, various game servers, and a proxmox setup for reverse engineering
 - Monitoring solution set up with Wazuh, Grafana, and Prometheus
- Optimizing Card Counting for BlackJack** | *Reinforcement Learning, Agentic AI* Feb 2024
- Coded a BlackJack environment and **Q-learning** agents that would mutate every generation to find the best card counting system. Hypertuned parameters to optimize training time and memory usage
- Automated Phone Backups** | *Python, SSH, SFTP, Raspberry Pi* Aug 2023
- Built network-aware phone backup system that detects device presence via periodic pinging and triggers automated file sync
 - Implemented deduplication using file hashing and binary search to avoid redundant storage and improve efficiency
- Analog Computer for Machine Learning** | *Tensorflow, Circuit Design, SPI, I2C* May 2023
- Designed and built a small circuit that leveraged Ohm's law to run neural networks with a minimal drop in accuracy (1-3% points) for under \$30
 - Learned SPI and I2C to read and write digital and analog signals
- BattleCats Ad Watcher** | *Python, PyAutoGUI* Mar 2021
- Built an automation tool using PyAutoGUI to simulate watching ads to gain in-game currency
 - Implemented image recognition via sprite matching to dynamically locate and interact with UI elements
 - Achieved throughput of ~60 automated actions per hour through performance tuning

TECHNICAL SKILLS

Languages: Python, Java, C/C++, SQLite, HTML/CSS, JavaScript, Lua

Frameworks: React, Next.js, Node.js, Flask

Developer Tools: Git, Docker, Kubernetes, Jupyter Notebook, VS Code, Visual Studio, PyCharm, IntelliJ, Eclipse

Libraries: Tensorflow, Pytorch, pandas, NumPy, Matplotlib, seaborn, BeautifulSoup, Selenium

Technical Applications: NLP, AI Classification, Information Retrieval, Web Scraping, Reverse Engineering