Guru Saran Kannan

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EDUCATION

SRM Institute of Science and Technology   Kattankulathur, India
B.Tech in Artificial Intelligence   June 2021 – May 2025
CGPA: 7.93 / 10

TEST SCORES

GRE General Test, ETS   April 2025
Score: 327 / 340 (Verbal Reasoning: 157, Quantitative Reasoning: 170, Analytical Writing: 5.0)

TOEFL iBT Test, ETS   July 2025
Score: 106 / 120 (Reading: 27, Listening: 30, Speaking: 21, Writing: 28)

PUBLICATIONS

Virtual Traffic Dynamics (VTD): A Custom AI Traffic Simulation Approach [Code] [Paper]
A Reinforcement Learning AI Traffic Simulation. Accepted for publication in *Proceedings of the International Conference on Deep Learning and Communications (IconDeepCom 2025)*. Springer. (Presented April 2025; forthcoming 2026).

RESEARCH PROJECTS

Adaptive RAG System for Student Support – BlueArise [Testimonial]   August 2025
Python, LangChain, OpenAI APIs, FAISS Vector DB, Streamlit

- Designed an adaptive Retrieval-Augmented Generation system that automated 70% of repeat support issues across over 500 student tickets.
- Reduced response times from 24 hours to under five minutes, improving satisfaction scores by 25% through real-time semantic matching.
- Fine-tuned the LLM to achieve 85% accuracy on previously unseen educational technology queries, with iterative learning from mentor feedback.
- Deployed an interactive Streamlit dashboard for ticket monitoring and system performance tracking.

Task Planner [GitHub] [Demo]   March 2025
Python, Pandas, NumPy, LangChain, LangGraph

- Engineered an LLM-powered planner that reduced daily scheduling time by 35% for 50 beta users through intelligent task prioritization and automated roadmap generation.
- Streamlined task-priority logic, improving on-time task completions from 62% to 82% within two weeks of deployment.
- Orchestrated a three-node LangGraph workflow integrating history analysis, Tavily web-search, and plan synthesis to deliver personalized task roadmaps in under two seconds.
- Built a Streamlit user interface with secure API-key vaulting and automatic history versioning for over 150 tasks, enabling users to revisit and refine previous plans.

Intelligent Traffic Signal Network [GitHub]   December 2024 – April 2025
Python, Pandas, NumPy, OpenAI Gym, Unreal Engine

- Architected a reinforcement learning-based signal controller that boosted intersection throughput by approximately 30% in simulation environments.
- Reduced average vehicle wait time by 22% through adaptive green-time tuning and intelligent route recommendations.
- Validated the model over 10,000 multi-agent episodes, achieving convergence in fewer than 75 iterations.
- Co-authored a paper accepted for Springer IconDeepCom 2025 conference and open-sourced the implementation code for research community reuse.

AI-Driven Pronunciation Training with Adaptive Learning Framework [GitHub]   June 2024 – November 2024
Python, TensorFlow, PyTorch, Speech Recognition APIs, Wav2Vec 2.0, LLMs

- Designed a speech coaching system adopted by over 120 English as a Second Language learners, raising pronunciation accuracy by 18 percentage points over six weeks.

- Implemented real-time phoneme and stress detection with end-to-end latency of 120 milliseconds or less.
- Trained models on 9,000 hours of LibriSpeech and Common Voice datasets, achieving a 21% Word Error Rate baseline.
- Developed personalized feedback loops that reduced repeated pronunciation errors by 20% for beginner-level learners.

Toxic Comment Classification Using Deep Learning [GitHub]   April 2022
Python, TensorFlow, Pandas, NumPy, Matplotlib, Scikit-learn, Gradio
- Built a six-label multi-class classifier achieving a micro-F1 score of 0.92 on 160,000 online comments.
- Vectorized all text inputs using TensorFlow TextVectorization, reducing preprocessing time by 40%.
- Optimized a Bidirectional LSTM-Dense neural network pipeline for three times faster inference while maintaining 93% precision and 91% recall.
- Launched a Gradio demonstration interface that served over 210 live predictions for model validation.

WORK EXPERIENCE

Software Engineer, Wasabi Scripts LLC [Website]   August 2023 – Present
United States (Remote)
- Maintained and enhanced FiveM game scripts used by over 18,000 servers worldwide, driving community engagement and platform adoption.
- Supported scripts that generated over 27,000 sales to satisfied customers, contributing to increased revenue and user retention.
- Reduced critical bug reports by 25% through systematic debugging, performance profiling, and proactive troubleshooting.
- Led community engagement efforts, managing feedback from over 200 active users to prioritize feature development and improvements.
- Collaborated with a distributed remote team to maintain 99.8% uptime and ensure compatibility across diverse server environments.

SKILLS

Programming Languages: Python, Lua, SQL
AI and Machine Learning: TensorFlow, PyTorch, OpenAI Gym, LangChain, LangGraph, Reinforcement Learning, Natural Language Processing, Model Training and Evaluation
Data Science and Analysis: Pandas, NumPy, Matplotlib, Scikit-learn, FAISS Vector Database
Development Tools: Git, GitHub, Vim, Gradio, Streamlit
Technical Skills: Code debugging, Performance profiling, Data structures and algorithms, Database queries and optimization
Specialized Skills: Game server modding (FiveM), Speech recognition APIs, Transformer models

CERTIFICATES

NVIDIA-Certified Associate: Generative AI Multimodal [Verify]
Artificial Intelligence Fundamentals (IBM) [Verify]
AI Agents (Hugging Face) [Certificate]
Fundamentals of MCP (Hugging Face) [Certificate]
Prompt Design in Vertex AI (Google Cloud) [Verify]
Deep Learning for Computer Vision and Image Processing Applications Workshop [Certificate]
Analytics and ML Workshop [Certificate]

SERVICE

FiveM Open Source Community   August 2024 – Present
Open Source Contributor & Developer Support Volunteer   *Remote*
- Mentored over 100 developers in game scripting and development best practices.
- Developed and shipped two Lua resources adopted by over 340 FiveM servers worldwide.