

# Guru Saran Kannan

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## EDUCATION

**SRM Institute of Science and Technology**  
*B.Tech in Artificial Intelligence*  
CGPA: 7.93 / 10

Kattankulathur, India  
June 2021 – May 2025

## TEST SCORES

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

**Task Planner** [[GitHub](#)] [[Demo](#)]

*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](#)]

*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.

**Adaptive RAG System for Student Support – BlueArise** [[Website](#)]

*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.

**AI-Driven Pronunciation Training with Adaptive Learning Framework** [[GitHub](#)]

*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

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### 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

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**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

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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

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### FiveM Open Source Community

August 2024 – Present

*Remote*

*Open Source Contributor & Developer Support Volunteer*

- Mentored over 100 developers in game scripting and development best practices.
- Developed and shipped two Lua resources adopted by over 340 FiveM servers worldwide.