

# Guru Saran Kannan

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## EDUCATION

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

06/2021 – 05/2025 | Kattankulathur, India

## TEST SCORES

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**GRE General Test, ETS (Educational Testing Service)** 04/2025  
Score : 327 / 340 (Verbal Reasoning: 157, Quantitative Reasoning: 170, AWA: 5)

**TOEFL iBT Test, ETS (Educational Testing Service)** 07/2025  
Score: 106 / 120 (Reading: 27, Listening: 30, Speaking: 21, Writing: 28)

## RESEARCH PROJECTS

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**Task Planner, (Python, Pandas, NumPy, LangChain, LangGraph)** 03/2025  
• Engineered an LLM-powered planner that cut daily scheduling time 35 % for 50 beta users  
• Streamlined task-priority logic, lifting on-time completions 62% → 82% in two weeks  
• Orchestrated a 3-node LangGraph workflow—history analysis → Tavily web-search → plan synthesis—that delivers personalised task roadmaps in < 2 s  
• Built a Streamlit UI with secure API-key vaulting and auto-history versioning for 150+ tasks, letting users revisit and refine every prior plan

**Intelligent Traffic Signal Network,** 12/2024 – 04/2025  
(Python, Pandas, NumPy, OpenAI Gym, Unreal Engine)  
• Architected an RL-based signal controller that boosted intersection throughput ≈30% in sims  
• Reduced average wait time 22% via adaptive green-time tuning and route recommendations  
• Validated model over 10k multi-agent episodes, logging convergence in < 75 iterations  
• Co-authored a Springer IConDeepCom 2025 paper; open-sourced code for research reuse

**Adaptive RAG System for Student Support — BlueArise,** 10/2024  
(Python, LangChain, OpenAI APIs, FAISS Vector DB, Streamlit)  
• Designed an adaptive RAG system that automated 70% of repeat support issues across 500+ tickets  
• Reduced response times from 24h to <5min, lifting satisfaction scores 25% via real-time semantic matching  
• Fine-tuned LLM to 85% accuracy on unseen edtech queries, with iterative learning from mentor feedback  
• Deployed interactive Streamlit dashboard for ticket monitoring and system performance tracking

**AI-Driven Pronunciation Training with Adaptive Learning Framework,** 06/2024 – 11/2024  
(Python, TensorFlow, PyTorch, Speech Recognition APIs, Transformer Models  
(Wav2Vec 2.0), Large Language Models)  
• Designed a speech coach adopted by 120+ ESL learners, raising accuracy +18 pp in 6 weeks  
• Implemented real-time phoneme & stress detection with ≤120 ms end-to-end latency  
• Trained on 9 000 h of LibriSpeech + Common Voice, achieving 21% WER baseline  
• Personalised feedback loops that cut repeated pronunciation errors by 20% for beginners

**Toxic Comment Classification Using Deep Learning,** 04/2022  
(Python, TensorFlow, Pandas, NumPy, Matplotlib, Scikit-learn, Gradio)  
• Built a 6-label classifier hitting micro-F1 0.92 on 160 k online comments  
• Vectorized 100% of texts with TF TextVectorization, trimming preprocessing 40%  
• Optimised Bi-LSTM-Dense pipeline for 3 × faster inference at 93% precision / 91% recall  
• Launched a Gradio demo that served 210 live predictions

## PUBLICATIONS

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### **Virtual Traffic Dynamics (VTD): A Custom AI Traffic Simulation Approach**

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).

## CONFERENCE PRESENTATIONS

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Presented "Virtual Traffic Dynamics (VTD): A Custom AI Traffic Simulation Approach" at IconDeepCom 2025 (Springer), demonstrating RL-based traffic optimization to 150+ attendees.

## PROFESSIONAL EXPERIENCE

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### **Software Engineer, Wasabi Scripts LLC**

08/2023 – Present | United States - Remote

- Maintained and enhanced FiveM game scripts used by 18,000+ servers worldwide, driving community engagement
- Supported scripts resulting in over 27,000 sales to satisfied customers, boosting adoption and revenue
- Reduced critical bug reports by 25% through effective debugging and troubleshooting
- Led community engagement, managing feedback from 200+ users to prioritize features
- Collaborated with a remote team to maintain 99.8% uptime and compatibility across diverse server environments

## SKILLS

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**Python:** Data analysis, scripting, automation, TensorFlow, PyTorch, OpenAI Gym

**AI and Machine Learning Concepts:** Reinforcement learning, NLP, model training and evaluation

**Debugging & Troubleshooting:** Code debugging, performance profiling, bug fixing

**Data Structures:** Algorithms, collections, memory management

**Lua:** Game scripting (FiveM), embedded scripting, debugging

**Git & GitHub:** Version control, collaboration, branching strategies

**SQL:** Database queries, data manipulation, performance tuning

**Game Server Modding (FiveM):** Script development, community support, troubleshooting

**Vim:** Editing, keyboard shortcuts, plugin management

## CERTIFICATES

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NVIDIA-Certified Associate: Generative AI Multimodal

Artificial Intelligence Fundamentals (IBM)

AI Agents (Hugging Face)

Fundamentals of MCP (Hugging Face)

Prompt Design in Vertex AI (Google Cloud)

Deep Learning for Computer Vision and Image Processing Applications Workshop

Analytics and ML Workshop

## ORGANIZATIONS

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### **FiveM Open Source Community,**

08/2024 – Present | Remote

*Open Source Contributor & Developer Support Volunteer*

- Mentored 100+ developers and shipped 2 Lua resources adopted by 340+ FiveM servers