Naveen Prashanna Gurumurthy

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Summary

- Full-stack engineer with 2+ years of experience designing, building, and deploying scalable Web and ML systems.
- Expertise in developing end-to-end ML pipelines, RESTful APIs, and CI/CD workflows for generative AI applications.
- Proven ability to bridge the gap between data science & software engineering to deliver production-grade solutions.

Education

***Master of Science*, University of Texas at Dallas (UTD)** | Dallas, TX **Aug 2023 - May 2025**
Major: Computer Science | Specialization: Intelligent System | GPA: 3.54/4

***Bachelor + Master of Technology*, Indian Institute of Technology (IIT) Madras** | India **Aug 2017 - May 2022**
Major: Mechanical Engineering | Minor: Artificial Intelligence & Machine Learning | GPA: 3.62/4

Technical Skills

- **Languages:** C++, Python, Javascript, TypeScript, SQL, R, MATLAB, Bash
- **Frameworks:** PyTorch, Tensorflow, Scikit-learn, LangChain, Vue.js, React.js, FastAPI, Hadoop, Spark
- **Software & Tools:** GCP, DataBricks, Docker, Kubernetes, AWS, Snowflake, MongoDB, PostgreSQL, Jenkins

Professional Experience

***AI Engineer*, Kahana Group Inc** | United States **Feb 2025 - Present**

- Spearheaded the development of user-centric UI/UX features using React.js, to create a highly intuitive and responsive interface that improved user engagement by 12% and overall usability.
- Integrated robust data analytics tools into our core product, providing real-time insights that directly influenced a product strategy shift which resulted in a 10% increase in subscription revenue.
- Engineered a LangChain-based AI browser assistant to let users perform actions with natural language commands, using LangGraph to model state transitions and LangSmith for real-time activity tracking and system refinement.

***Software Engineer*, Quantitative Brokers** | Chennai, India **Jun 2021 - Jun 2023**

- Engineered a proprietary internal tool to automate the creation and transmission of FIX order messages, which eliminated manual processes and streamlined high-frequency trading operations.
- Enhanced the core FIX messaging platform by integrating robust support for Multi-Leg orders, which boosted operational efficiency by 15% and enabled the firm to expand its product offerings.
- Designed and optimized decentralized database solutions using Postgres, enhancing database efficiency and reducing query latency by 10% to support real-time data needs.
- Led the strategic integration of SonarQube and BlackDuck into the Jenkins CI/CD pipeline, which automated code quality analysis and vulnerability scanning, enhancing application security and reducing critical risk factors by 20%.

***Machine Learning Engineer Intern*, TVS Motors Ltd** | Hosur, India **May 2019 - Jun 2019**

- Executed an end-to-end computer vision system using OpenCV to scan and validate vehicle labels on the assembly line, improving the manufacturing validation system's accuracy by 3%.
- Devised and trained a custom TensorFlow-based object detection model, leveraging a lightweight CNN architecture, that achieved 99% accuracy in text engraving recognition and optimized the quality control process.

Projects

***Generative AI Engineer*: ChatBot** | Personal Project **Apr 2025 - May 2025**

- Fine-tuned the Mistral LLM using a custom QLoRa approach on a specialized dataset, which reduced the model's memory footprint by 40% while maintaining 98% of its original performance.
- Integrated a Retrieval-Augmented Generation (RAG) pipeline to query personal documents, which decreased response latency by 160ms and reduced factual inaccuracies (hallucinations) by 75%.

***Machine Learning Engineer*: Anthropic's Computer Control** | Personal Project **Feb 2025 - Mar 2025**

- Developed a LangChain-based system for LLM Mac control, successfully replicating core functionalities of Anthropic's Computer Control tool to enable natural language-based desktop automation.
- Implemented custom tools for text simulation, mouse automation, and application management, which reduced average task completion time by 30% by eliminating manual steps.

***RL Engineer*: Trajectory-Aware Human Feedback for Hierarchical RL** | UTD **Sep 2024 - Dec 2024**

- Proposed a novel Hierarchical Reinforcement Learning framework to improve subgoal generation in complex tasks, demonstrating a new approach for solving long-horizon problems.
- Deployed the Deep-RL framework in the FetchReach environment, resulting in a 10% increase in task success rates by effectively breaking down complex goals into manageable sub-goals.

Awards and Honors

- Granted **Scholarship** for Graduate Studies by securing merit score in "Graduate Aptitude Test in Engineering"
- Awarded **Silver Prize** in "Terrace Farming Robot for Hilly areas" robotics challenge at Inter IIT Tech Meet
- Secured a place in the **Asia and Limca Book of Records** for "Most number of robots cleaning an area"