Supraja Srikanth

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EDUCATION

Master's in **Computer Science** University of Cincinnati| Cincinnati | USA **Aug 2025 - Present**

Coursework - Artificial Intelligence, Machine Learning, Data Structures and Algorithms.

B**achelor's** in **Computer Science and Business Systems** VNR VJIET | Hyderabad | India | (CGPA – 3.4) **Aug 2019 - Jun 2023**

Coursework - Reinforcement learning, Deep learning, Data Mining, Software Development Lifecycle, Distributed Systems

WORK EXPERIENCE

Application Developer | ThoughtWorks | Hyderabad **Jan 2024 - Jul 2025**

- Engineered bill notifications and alerts within the distributed autopay platform using **Spring Boot and Java**, leveraging **software design patterns** to build reliable, modular components, and boosting **customer experience by 30%** through consistent payment reminders.
- Architected a robust recurring mandate protocol for autopay, confirming instantaneous payments after bill production, thereby maximizing payment efficiency and **diminishing payment failure rates by 1.5%.**
- Decreased payment processing latency by **75ms** by optimizing BBPS APIs; accelerated bill and biller data retrieval, enhancing performance, scalability, and customer satisfaction in real-time transactions.
- Implemented **Redis Pub/Sub architecture**, increasing concurrent processing capabilities by at least **25%**, decreasing execution latency for **high-demand distributed workflows**, and improving overall system responsiveness.
- Reduced time spent on PostgreSQL maintenance by automating database updates, improving data integrity across systems, and ensuring consistent uptime, while optimizing database performance by **10%**.

Software Engineer | KAS Commerce | Mumbai **Oct 2023 - Jan 2024**

- Optimized API response time for Stripe transactions by **150ms**, tracking **key performance indicators (KPIs)** on transaction latency to enhance user experience during checkout.
- Implemented Amazon OAuth for user registration and authentication, reducing manual verification time by **40%**, accelerating onboarding, and improving system performance, security, and user experience.
- Built interactive **business intelligence** dashboards using React and PostgreSQL for **data visualization**, facilitating faster data-driven decisions and increasing dashboard usage by **30%**.

Software Engineering Intern | Amazon | Hyderabad **Jan 2023 - Jun 2023**

- Designed a shadow testing environment with Java, Spring Boot, and AWS, augmenting code coverage by 8%; also refactored legacy code, enhancing maintainability and reducing **technical debt by 12%.**
- Debugged rate card logic leveraging JUnit, Mockito, and EasyMock for comprehensive integration testing; **elevated test coverage** by **15%**, resulting in a substantial reduction of post-deployment bugs.
- Initiated an automated approval workflow to promptly detect Brazil package violations during pipeline deployments via Maven and Git; streamlined deployment process for **3 critical microservices**.

Software Engineering Intern | Giottus Technologies Pvt Ltd | Chennai **Jun 2022 - Jul 2022**

- Integrated cryptocurrency order book API using React.js and Python; **decreased API latency by 15%**, improving real-time market data access and platform responsiveness.
- Cleaned and preprocessed **75 GB** of cryptocurrency transaction data using Pandas and NumPy, applying scaling, feature engineering, and missing-value imputation to **reduce data errors by 7%** and improve model reliability.

PROJECTS

GPT-From-Scratch - https://github.com/supraja777/GPT-From-Scratch

Implemented a **Generative Pre-trained Transformer (GPT**) from scratch using **Python**, **Pytorch, including BPE tokenization**, **multi-head self-attention, positional embeddings, transformer blocks**, and **end-to-end training and inference pipelines** for autoregressive language modeling.

All-RAG-Techniques - https://github.com/supraja777/All-RAG-Techniques

Engineered **scalable Retrieval-Augmented Generation (RAG) pipelines** implementing **dense embeddings, vector search, semantic chunking, query rewriting, reranking, and contextual compression** to improve LLM retrieval accuracy

Dual-Agent-Debate - https://github.com/supraja777/Dual-Agent-Debate-Pattern

Built a dual-agent LLM debate system in Python leveraging **agent orchestration, state-driven workflows, prompt engineering, memory management, and multi-round reasoning** to enable structured argument generation, contextual refinement, and final response synthesis.

SKILLS

Programming Languages: Python, Java, JavaScript, TypeScript, Go, C#, C++, R, C, PHP, Bash

Front-End Technologies: React.js, Redux, Next.js, HTML, CSS, JavaScript, TypeScript, AJAX, GraphQL, WebSockets

Back-End Technologies: Spring Boot, Node.js, Express.js, Django, .NET, C#, Microservices, REST APIs, Spring Web MVC

Databases: MySQL, PostgreSQL, Oracle, PL/SQL, Snowflake, DynamoDB, MongoDB, NoSQL, Stored Procedures, Redis