

Vikrant Mehta

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EDUCATION

- **Indian Institute of Technology (IIT), Madras** Chennai, India
BS in Data Science and Application; GPA: 3.82 (9.56/10.0) *Sep. 2021 – Sep. 2025*

EXPERIENCE

- **VuNet Systems** Bangalore, India
Big Data Engineer *Feb. 2025 - Present*
 - **LogstashConverter:** Engineered a custom Logstash-to-KafkaStreams compiler after evaluating and deprecating alternative GenAI-based approaches. This slashed pipeline migration time from 4 weeks to just 2 days (a **93% reduction**), resulting in significant man-hour and cost savings. Designed and implemented modules for the Parser, AST Optimization, and Code Generation.
 - **Data Enrichment:** Assumed ownership of a business-critical data enrichment pipeline for ingesting external data into Kafka that had repeatedly caused production instability. Permanently resolved long-standing, recurring issues through deep analysis of Debezium connectors, PostgreSQL, and Kafka, and introduced optimizations to improve performance & stability such as custom Single Message Transforms.
- **VuNet Systems** Bangalore, India
Data Science Intern *Oct. 2024 – Feb. 2025*
 - **VectorServe:** Architected and deployed this internal AI tool using **FastAPI** to streamline vector database interactions. Engineered robust APIs that served as the backbone for company-wide **RAG** and **Agentic workflows**, significantly reducing the time-to-market for internal AI tools. Implemented and experimented with research such as Late Chunking to improve retrieval relevance.
- **Indian Institute of Technology Madras** Chennai, India
Teaching Assistant *Jun. 2024 – Dec. 2024*
 - Conducted weekly problem-solving sessions for **50+ students**, guiding them from brute-force approaches to asymptotically optimal algorithmic solutions on LeetCode through time and space complexity analysis.
 - Simplified advanced topics such as Network Flows and Dynamic Programming using first-principles and step-by-step execution traces during interactive sessions, enabling students to independently derive correct solutions.
 - Designed and authored a structured curriculum and curated problem library that continues to serve as the primary learning resource for **100+ active learners per month**.

PROJECTS

- **GPT-2:** Implemented GPT-2 from scratch using PyTorch along with several other research papers such as Late Chunking, WaveNet, etc.
- **miniRegex:** Implemented a mini regex engine which parses regex expressions and matches them against text. Implemented the Parser and Matcher, with features like Quantifiers, Named Captures, and CharacterClasses.

PROGRAMMING SKILLS

- **Languages:** Python, Javascript, C++, SQL, Java
- **Technologies:** Clickhouse, Kafka, Kubernetes, FastAPI

AWARDS AND RECOGNITION

- **CFA Level 1:** Cleared Level 1 of CFA with over 90 percentile.
- **VuNet Rising Star Award:** Awarded for exceptional contributions at VuNet Systems.