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SUMMARY

Final-year Data Science and Engineering student (graduating May 2026) with hands-on experience building analytics pipelines, fraud detection systems, and AI-driven applications using Python, SQL, Tableau, FastAPI, and Docker. Published IEEE researcher and national-level FinTech finalist (SEBI Top 30). Looking to apply data engineering and analytics skills in a structured, high-impact environment.

EDUCATION

Presidency University, Bengaluru | B.Tech, Information Science & Engineering (AI & Data Science) | Aug 2022 – May 2026 | CGPA: 7.64 / 10.0

TECHNICAL SKILLS

Languages & Analytics: Python (Pandas, NumPy), SQL, Statistical Analysis, EDA, Forecasting, Data Cleaning

Visualization & Reporting: Tableau, Power BI, Streamlit, Matplotlib, Seaborn, Dashboard Design

Tools & Infrastructure: FastAPI, Docker, Kafka, PostgreSQL, Redis, Git, Jupyter, Google Colab

Concepts: Graph Analytics (NetworkX), NLP, Semantic Search, Schema Normalization, Pipeline Automation

PUBLICATIONS

I-Enhanced PGRKAM Employment Analytics Platform — Vignesh Kumar U et al. | IEEE ISAECT 2025, Dec 2025 | DOI: [10.1109/ISAECT68904.2025.11318700](https://doi.org/10.1109/ISAECT68904.2025.11318700)

PROJECTS

AI-Powered Learning Aid | Python, FastAPI, Next.js, Sentence Transformers, FAISS, Qdrant, Docker | 2024

- Built a semantic search system that matched lecture transcript topics against 1,000+ open educational resources (Wikipedia, OpenStax, arXiv) using Sentence Transformers; compared FAISS (150-250ms, in-memory) vs Qdrant (API-based, persistent) and selected per use case.
- Tested with 10+ student users and iterated on recommendation relevance and UI flow based on feedback; packaged as a Dockerized FastAPI + Next.js app designed for cloud deployment.

Financial Crime Detection Pipeline | Python, Tableau, NetworkX, Scikit-learn, Docker | 2024

- Built a fraud detection pipeline on a 1M+ transaction dataset, applying ML-based risk scoring and graph analytics (SCC, Betweenness Centrality via NetworkX) to identify suspicious transaction networks and flag high-risk entities.
- Automated Tableau Hyper file generation with schema normalization across 4 dataset formats, reducing dashboard setup from a manual multi-step process to a single-click pipeline.

Hercules Finance AI | Next.js, TypeScript, Google Genkit, Gemini AI | Jan 2025 — *SEBI Global FinTech Festival 2025, Top 30 Nationally*

- Built a financial planning app for gig workers featuring income forecasting, crisis planning, sentiment-based distress detection, and fraud simulation; validated forecasting module using RMSE/MAPE on simulated irregular income data.
- Delivered multilingual UI (English, Hindi, Marathi) with UPI simulation and family finance tracker; selected for Top 30 at SEBI Global FinTech Festival 2025 out of national entries.

ACHIEVEMENTS & LEADERSHIP

IEEE Publication, ISAECT 2025: Co-authored paper on AI-enhanced employment analytics platform; published in IEEE Xplore, Dec 2025.

Top 100 Team, Mumbai Hack | Ranked in top 100 out of 3,500+ participants for a FinTech/AI project at one of India's largest hackathons.

Top 30, SEBI Global FinTech Festival 2025: Selected in national zonal round for gig worker financial planning platform.

1st Runner-Up, IIT Madras Design Blitz 2024: AI-assisted note-taking UI/UX prototype placed 2nd among national submissions.

Top 8 Finalist, Tata Crucible Campus Quiz — Karnataka Cluster: One of 8 teams selected across Karnataka in India's largest corporate quiz.

Organizing Committee, Namma Suraksha Hackathon: Coordinated logistics for 200+ participants across a 3-day event.