

Vedant Borkute

📞 +1 951-823-2856

✉️ 2711vedant@gmail.com

🌐 vbork001@ucr.edu

👤 Vedant2100

linkedin vedant-borkute

Education

University of California, Riverside
MS in Computer Science

Sep 2025 – Mar 2027
Riverside, California

Indian Institute of Technology, Bombay
B.Tech in Computer Science

Aug 2019 – Apr 2023
Mumbai, Maharashtra, India

Experience

Data Scientist - Finarb.ai

Aug 2023 - Aug 2025

- Implemented and benchmarked forecasting statistical(Seasonal AR, VAR, Facebook Prophet) and deep learning based models (LSTM, TCN) for order data across different nodes in pharmaceutical supply chains, achieving a **90% reduction in Mean Absolute Percentage Error.**
- Conducted time-series diagnostics **ACF/PACF plots & EACF matrices, mean and variance stationarity tests**, and incorporated **exogenous variables** like mortality rates, veteran population statistics, inventory, backorders) into forecasting models to improve forecast accuracy.
- Built an **end-to-end forecasting pipeline** including data generation, pre-processing, model selection with custom metrics, and docker-based containerization for reproducible deployment.
- Implemented AI Agents:
 - Feature Engineering:** Generation of domain-relevant features via retrieval-augmented generation on internet-based and other sources, improving model performance by 5%..
 - Cross-Database Queries:** Enabling natural language queries spanning multiple databases/datasources with a SQL and Python code generation agentic workflow.
 - Business Dashboards:** Automated creation of dashboards with key performance indicators and intuitive visualizations.
- Performed data preparation and analysis for pharmaceutical use cases (inventory-order correlations, order-pricing correlations, supply scenario assessment, purchasing pattern) using optimized **SQL scripts** to generate datasets, compute metrics, and present summaries to leadership.
- Developed comprehensive **Power BI reports** for share gain attribution, portfolio performance, competitor dynamics (top share gaps, vulnerability trends, consecutive share losses), BCG-style prioritization, and annual revenue/volume dashboards with executive summaries.

Projects

Online Competing and Development Environment – Advisor: Prof. Amitabha Sanyal

Autumn 2020

- Built and deployed a remote virtual Linux environment to eliminate inter-OS compatibility issues and enable cross-platform code compilation via a web browser.
- Developed a **Django backend** supporting user accounts and storage of up to 10 files with directory structure; designed the frontend using **Bootstrap**.
- Added support for multiple programming languages (C++, Java, Python) with standard library support.
- Implemented an online competing environment where users could attempt scheduled problems, with submissions auto-graded based on input parameters.

Technical Skills

- Languages:** C++, R, JavaScript, Python, Bash, Prolog, AWK, MIPS, Neo4J CQL, SQL, Sed, Lex, Yacc, L^AT_EX
- Technologies:** Pandas, R, SQL, Power BI, NumPy, SciPy, MATLAB, PostgreSQL, React, Django, PyTorch, TensorFlow, MongoDB
- Software:** Microsoft Excel, RStudio, DataGrip, Cursor, Docker, Git, PowerPoint, Word, Slack, Azure DevOps, Jira, Confluence

Accomplishments

- Ranked AIR 1 (OBC-PwD) in IIT-JEE Advanced 2019, among the top 0.8% nationwide in JEE Main among 1.3 million candidates.