VARNIKA KALANI

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EDUCATION

Boston University: College of Arts and Sciences; Boston, MA

May 2026

Bachelor of Arts in Data Science with Minor in Business and Administration

Relevant Coursework: Financial Accounting, Business Decision-Making with Data, Applied Programming for Investments, Probabilistic and Statistical Decision-Making for Management, Programming for Data Science, Introduction to Product Management

WORK EXPERIENCE

BU Finance & Investment Club; Boston, MA

Feb 2025 - Present

Quantitative Senior

- Collaborating on a semester-long quantitative research project focused on Kalshi prediction markets and automated trading pipelines.
- Built a scheduled Azure Function pipeline to collect daily SPY/SPX data using Kalshi API, with logs and cloud storage integration.
- Applied Python testing (pytest), typing (Pydantic), and engineering best practices. Working toward Docker/Kubernetes deployment.

Girls Who Code; Boston, MA *Mentorship Program Facilitator*

Sep 2024 - Dec 2024

- Served as a Bits Facilitator in the Bits & Bytes Mentorship Program, a Girls Who Code BU initiative.
- Conducted weekly virtual coding workshops for grades 3–5, teaching Python, Scratch, and foundational computer science principles.

Mauve; Rajasthan, India

May 2023 – June 2024

- Social Media Analytics
 - Developed and implemented targeted ad campaigns based on demographic data and user engagement metrics, increasing social media-driven sales by 15% over a three-month period.
 - Analyzed social media trends and feedback to refine marketing strategies, which enhanced brand visibility and improved customer satisfaction ratings.

World of Stones; Maryland, USA

Dec 2023 - Feb 2024

Data Analytics Intern

- Identified key performance indicators for sales and customer engagement through comprehensive exploratory data analysis, providing
 actionable insights that informed strategic decision-making.
- Visualized complex data sets using tools like Tableau and Python's seaborn, enhancing stakeholder understanding of underlying trends.

PROJECTS

Thurmond Amendment Advocacy Campaign

Jan 2025 – Apr 2025

- Partnered with client Yusuf Dahl to support federal advocacy for repealing the Thurmond Amendment using state-level drug conviction data.
- Cleaned and analyzed Arkansas data to uncover demographic disparities and socioeconomic effects of fair housing exclusions.
- Created visualizations and policy impact summaries for use in legislative meetings; built dashboards using Python, SQL, and Google Looker.

Graph-Based Network Analysis: Average Distance Calculation

Feb 2024 – Mar 2024

- Analyzed MIT call data using graph traversal algorithms in Rust to compute average node distances.
- Optimized the program for large datasets, providing insights into network connectivity and efficiency.

Diabetes Prediction Model

Oct 2024 – Dec 2024

- Built a Random Forest model to predict diabetes, prioritizing recall for accurate case detection.
- Implemented Random UnderSampling to tackle class imbalance, achieving a 73.2% recall for enhanced case detection.
- Applied dimensionality reduction (PCA) and performed hyperparameter tuning to optimize overall performance metrics.

SAAF

Dec 2022 - Dec 2023

- Developed an iOS app to address water shortages in Rajasthan, facilitating NGO distribution of testing kits.
- Designed a user-friendly interface and optimized backend performance using advanced data structures.

LEADERSHIP

NVIDIA GTC 2025 Delegate San Jose, CA

March 2025

• Attended leading AI conference sessions on agentic AI, generative AI infrastructure for India, and AI-driven retail transformation. Earned certification in LLM app development and prompt engineering.

Delta Kappa Alpha, Member

Sept 2023 - Present

• Led and coordinated Delta Kappa Alpha's key events, promoting collaboration and fostering a deeper appreciation of cinema among members and the broader community.

Social Impact Film Festival, Volunteer

Jan 2024 - April 2024

 Coordinated logistics and programming for the Social Impact Film Festival, enhancing attendee experience and engagement through wellexecuted screenings and event.

CERTIFICATIONS

Building LLM Applications With Prompt Engineering – NVIDIA GTC 2025

Credential ID: g-2IIRd1RO6ZWcYuaAXLtA | Issued: Mar 2025

Completed a hands-on workshop led by Mohammad Ali Raza on deploying real-world LLM-powered applications using LangChain, Llama 3.1, and NVIDIA's NIM. Topics included chatbot development, document analysis, agentic AI tools, and structured output design.

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Programming & Web Development: Python, Java, R, SQL, LangChain, Web Development | Data & Analytics Tools: Power BI, Tableau, Google Looker | Cloud & DevOps: Kubernetes, Docker | Design & Productivity: Canva, Adobe Photoshop, Microsoft Office, G-Suite | Version Control: Git