# **Mudra Patel**

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#### **EDUCATION**

Boston University Boston, MA

Bachelor of Science in Data Science

Graduation May 2027

Activities: Data Science Association, Phi Chi Theta Fraternity, BU Run Club, BU Alternative Investment Group, BU Indian Club Relevant Coursework: Algorithms, Data Structures, Linear Algebra, , Software Engineering, Machine Learning & AI, AI Policy

De Anza College Cupertino, CA

Bachelor of Engineering in Computer Science

2024

## PROJECTS AND ORGANIZATIONS

# Near-Earth Object 3D Visualizer | Python, Three.js

Jun. 2025 - Jul. 2025

- Engineered a full-stack 3D visualizer, creating a **Python ETL** pipeline to **parse** and **structure 365**+ data points per object from the **NASA JPL HORIZONS API**, achieving a **95% reduction** in file size for frontend consumption.
- Developed a real-time interactive 3D frontend with **Three.js**, designing a minimalist HUD-style UI to display **10**+ unique telemetry data points, while maintaining a smooth **60 FPS** for an optimal user experience.
- Implemented a **procedural generation** system that uses **3**+ scientific parameters (radius, spectral type, rotational period) to automatically create data-driven 3D models for over **90,000** potential Near-Earth Objects.

# **BU Alternative Investments Group**

Boston, MA

Case Analyst

2024-present

- Competing in a case competitions, developing and pitching comprehensive **leveraged buyout** (LBO) strategies with a **structured exit plan** to a panel of **strategic buyers**, local **businesses leaders**, and university **faculty**.
- Conducting in-depth **industry analysis** and **financial modeling**, calculating EBITDA growth, debt reduction, investor returns, and equity value to assess deal feasibility and maximize potential returns.
- Collaborating in a 6 member team to perform **data-driven** due diligence, identifying **key risks**, develop **mitigation strategies**, and refining **valuation techniques**, ensuring a data-driven approach for final **investment proposals**.

Finance Committee Cupertino, CA

Finance Analyst

2024-2025

- Analyzed year-over-year spending trends across **5**+ departments, translating raw **budget data** into **actionable reports** for administrators on **resource allocation** and program funding.
- Developed and presented strategic **financial proposal** to school administrators, detailing **3-5 cost optimization** initiatives that could improve financial sustainability, enabling up to **34%** of funds to high-impact programs.
- Audited \$2+ million in financial reports, identifying key inefficiencies and proposing cost-saving measures, resulting in a new policy that formally included student representation in the yearly budget proposal process.

# Track & Field / Cross Country Team & Student-Athlete Advisory Committee

Santa Clara, CA

Team Captain | Head Advisor

2021-2023

- Spearheaded the "Student Section Experience Improvement" project, to drive the student engagement in athletics, increasing sporting event participation by ~15% through targeted initiatives.
- Captained the Varsity Cross Country team to a **first-ever qualification** for the California Interscholastic Federation (CIF) **State Meet**,
- Awards: Most Improved, Coach's Award, CCS Team GPA (2nd place regionals), CCS Varsity (2nd place), RAM Invite (1st place team + individual medal), Firebird Invite Varsity (1st place).

### WORK EXPERIENCE

Gong Cha
Shift Lead
Cupertino, CA
2022-2024

- Oversaw daily store operations at a high volume boba store, led a 3-person team overseeing **300**+ daily transactions, improving inventory efficiency, which contributed to an ~85% customer satisfaction rating.
- Identified opportunities to grow community engagement and revenue by forging 3+ partnerships with local organizations, leading to sponsorship programs that increased **recurring revenue** by **15**% and improved brand visibility.

Wilcox High School Santa Clara, CA

Assistant Coach, Track and Cross Country

2022-2024

- Assistant Coach for Cross Country and Track & Field, mentoring a team of 75+ athletes working to refine personalized training plans focused on strength and conditioning that improved performance by ~10% and athlete retention by ~25%.
- Designed and implemented a strategic split-team training program for distance runners and throwers, provided skill-specific coaching that resulted in a 20% year-over-year increase in regional qualifiers.

# SKILLS & TOOLS

*Programming*: Python, C++, Rust, SQL, JavaScript, HTML, CSS | *Libraries*: Pandas, Numpy, Matplotlib, Plotly Dash, Next.js, Three.js | *Tools*: Git, Azure, Adobe Creative Cloud Microsoft Office Mongo DB, CI/CD, Figma | Data Analysis, Statistics **Languages**: English (native) Gujarati (native), Hindi (native)