Dhyey Dharmendrakumar Mavani

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Education

Amherst College | **Amherst, MA** | *Bachelor of Arts in Computer Science and Mathematics* **Expected 2025**
GPA: 3.80/4.00 | Major GPA: 4.00/4.00
Relevant Coursework: Distributed Algorithms, Data Structures, Public Choice, Data Science, Cryptography, Stochastic Processes

Harvard Business School (HBS Online) | **Remote** | *HBX CORe (Credential of Readiness) Program* **Summer 2022**
Coursework: Business Analytics, Economics for Managers, and Financial Accounting

Akuna Capital University | **Remote** | *Akuna Capital Options 101 Course* **January 2022**
Coursework: Options and strategies, Payoff Diagrams, put-call parity, Greeks and application based quizzes

Bloomberg LP | **Remote** | *Bloomberg Market Concepts (BMC) Certification* **December 2021**
Coursework: Economic Indicators, Currencies, Fixed Income and Equities and application based assessments

Coursera | **Remote** | *Professional Specializations from Google, IBM and INSEAD* **2020–2021**
 – Google Data Analytics and Project Management, IBM Data Science and Applied AI, INSEAD Blockchain

Stanford University | **Stanford, CA** | *Pre-Collegiate University-Level Online Math and Physics* **2018-2019**
Coursework (9 credits): Multivariable Calculus, Intermediate Mechanics I, Light and Heat

P.P. Savani Cambridge International School | **Surat, India** | *High School Diploma* **Graduated 2021**
Coursework: 4 A-levels: A*| 4 SAT Subject Tests: 800/800| 8 AP exams: 5/5| Stanford Pre-collegiate Math/Physics: 9 credits

Experience

Jane Street | **New York, USA** | *Business Development FOCUS Fellow 2022* **Mar 2022–Apr 2022**
 – Selected and flown out to main office for exclusive networking events and workshops to explore business development. Learned about how the firm uses math, logic, computer science, and probability in its business.
 – Applied math, game theory, probability and quantitative analysis to real-world situations through exercises and activities.

AI in Liberal Arts | **Amherst,MA** | *Software Developer & Program Manager* **Feb 2022–Present**
 – Curating software tools for community; developing and refining documentation and web-based resources
 – Working with students and faculty members on the use of AI for research and education across the liberal arts.

UChicago | **Chicago, USA** | *Representing Amherst College at Midwest Trading Competition* **Feb 2022–Present**
 – Preparing cases for **quantitative trading** with a team of 4 using **Python and Probability**
 – Presenting cases; networking with companies; attending seminars during the event

Simplify | **San Francisco, CA** | *Campus Student Ambassador* **Jan 2022–Present**

(A)PMs Association | **Amherst,MA** | *Founder, President & Program Manager* **Jan 2022–Present**
 – Established the club to increase awareness about 3Ps (Project, Product and Program) Management across 5 colleges
 – Conducting regular events with PM/Generalist alumni; Delivering lectures on product cycle and lean product

Rebellion Research | **New York, NY** | *Quantitative Research and Development Intern* **Sep 2021–Present**
 – Coding and Backtesting trading algorithms for quantitative research on QuantConnect using Python and C#
 – Working with the CIO on financial research through regression modeling of Sharpe and Sortino ratios of stocks
 – Writing articles on ETFs, Trading Regulations and technologies used in FinTech after interviewing leaders in Finance.

Amherst College Archery Team | **Amherst, MA** | *Junior Olympics Archery Development Archer* **Sep 2021–Present**
 – Won 4 badges and 1st place by scoring more than double the required points in monthly indoor and outdoor tournaments
 – Helped organizing regular shoot-outs and trained 9 new archers in improving aim and posture for 8 hours a week

Alumni Relations Office | **Amherst,MA** | *Phonathon Program Assistant* **Sep 2021–Dec 2021**
 – Raised the alumni participation by 26 percent by proposing better outreach approaches; updated the alumni directory
 – Made 419 communications with alumni to solicit donations for the Amherst Fund, and responded to their objections

Code Club by Raspberry Pi Foundation UK | **India** | *Founder and Program Manager* **April 2019–May 2021**
 – Expanding knowledge through training from Raspberry Pi to ensure up-to-date teaching and learning resources
 – Teaching Scratch, Python, and Java to 57 9-13 year-olds through making animations and projects

Greenpeace International | **India** | *West-zone leader, Founder & Project Manager: Pollution Project* **Jun 2020–Nov 2020**
 – Proposed and led a project with the motto of analyzing air pollution data pre/during/post-COVID-19 to propose policies
 – Created a website and managed operations for a cross-functional team of 30 people with people from tech and humanities.

Renewable Energy Department, JAU | **India** | *Computational & Data Researcher* **April 2018–Jun 2019**
 – Gauged, both statistically and economically, different factors individually and in tandem, while exploring various patterns of placing PV panels in search of the most efficient method; became **Genius Olympiad Finalist**-2020
 – Developed mathematical models using **FORTRAN** for implementation of the energy balance equations to compare predicted and measured data, which proved to be a great help to farmers in terms of greenhouse efficiency.

Projects

Stochastic Processes in Financial Markets: Black-Scholes   **Feb 2022–April 2022**
- Wrote a research paper on the Discrete Stochastic Processes and its extension to the continuous Ito's calculus

Game Theoretic Analysis of Masking Public Policy in the US   **Jan 2022–Feb 2022**
- Wrote a research paper on the application of prisoner's dilemma and discount rates in the case of masking mandates.

Calendar Query Tool for efficient time-tracking and management   **Oct 2021–Nov 2021**
- Created a time tracking and data analysis tool for better self-evaluation of productivity, physical and mental well-being.
- Performed Data Analysis, Wrangling and k-Means Clustering using R, Shiny, RStudio, and LaTeX

Shiny App and Blog Project for COVID-19 Data Analysis   **Sep 2021–Nov 2021**
- Created an app and blog to analyze the periodic and spatial trends of COVID-19, mental health and sentiments in the US.
- Performed Twitter Sentiment Analysis, Spatial Data Superposition and statistical analysis using R, Shiny and Twitter API.

Skills

Technical: Python, R, R Studio, Java, Data Analysis, Data Science, AI, ML, HTML/CSS, JavaScript, LaTeX, C#, Git/Terminal, VSCode/IntelliJ, WordPress, FORTRAN, Kaggle, Google Suite, Microsoft Office Suite.

Language: English (native), Hindi (native), Gujarati (native), Sanskrit (proficient)

Interests: Traveling, Badminton, Archery, Meditation, Quad Biking, Hiking.

Honors & Awards

Representing Amherst College at **10th UChicago Midwest Trading Competition** as the only freshman in the team

World Topper and Champion Award in **Asian International Mathematics Olympiad (AIMO-2020)**

1st Runner-up globally in **World International Mathematics Olympiad (WIMO-2020)**

Bloomberg Markets Certification (BMC) by completing: Economic Indicators, Currencies, Fixed Income and Equities

Software Engineering Virtual Experience **JP Morgan Chase and Co.**

Emerging Scientist Award for consistent contributions in interdisciplinary scientific research at a young age