## Aarti Modi

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### **EDUCATION**

# University of California, Los Angeles

Expected May 2025

## BA in Business Economics and Applied Math (Specialization: Computations): GPA 3.8

Portfolios & Investments, Valuations & Modelling, Interest Theory, Financial Mathematics, Micro/Macro, Accounting, Branding, Entrepreneurship, Econometrics, Data Science, Machine Learning, Deep Learning, Probability & Statistics, Time Series Analysis, Data Structures & Algorithms, Optimization, Linear Algebra, Modelling, Quant Methods,

- Activities: USAC ISR Student Government Head of Finance, Bruin Women in Business, Grader for Python,
- Awards: Dean's Honors List.

### **WORK EXPERIENCE**

#### **Business Development Intern**

Plantas Rebranding Project

July 2024 – Present

- Spearheaded the complete rebranding of Plantas, designing the new name, visual identity, packaging, and product portfolio to establish it as a niche-focused subsidiary, tapping into emerging markets.
- Strategically repositioned the brand to target eco-conscious consumers and the 100% organic baby products market.
- Conducted market research, competitor analysis, and pricing strategy and refreshed customer experience, projecting a 25% increase in brand recognition in the first year.

### Strategic Intern,

Plantas, startup for certified organic skincare products

June 2024 - August 2024

- Redesigned B2B sales strategies reducing early-stage sales returns by 10% and improving quarterly cash flow by 15%.
- Prepared financial projections and pitch decks, securing \$5M in funding to drive the startup's expansion.
- Collaborated with multiple teams to develop strategies to address marketing challenges & strengthen market position.

#### Investment Banking Intern,

HDFC Bank

June 2024 – Aug 2024

- Reviewed and assessed 80+ IPO DRHP filings for pricing, valuation, and underwriting opportunities, leading to incremental fee-based revenue for the firm.
- Collaborated to identify 2 companies for new IPO transactions in ECM, contributing to the pipeline of future deals.
- Conducted financial modeling and ratio analysis for a \$100M project finance deal, providing actionable insights

## Strategic Advisory Intern,

Tarang Capital Advisory

June 2023 - September 2023

- Assisted the advisory team in guiding an Indian storage company through LPG capacity expansion, financial versus strategic investor analysis and structuring the investment through a wholly owned subsidiary.
- Participated in joint venture negotiations for the SHA and SPA, resulting in a 40% increase in market capitalization.
- Analyzed 10+ client case studies to identify key success factors, advisory rationale and impact on the company brand.

#### **Business Analyst Intern,**

Everstone Capital

August 2023 – September 2023

- Conducted valuation for 5 companies using DCF & comparative market multiples, influencing investment decisions.
- Contributed to monthly valuations for investor reports, ensuring timely and accurate financial information.

#### Content Design and Marketing Intern,

**Skillmatics** 

June 2022- August 2022

- Designed content for 10+ educational games by analyzing market trends, target demographics, and product features,
- Enhanced product offerings, contributing to improved user engagement and driving a measurable increase in sales.

#### **PROJECTS**

### **ASL Real-Time Recognition System**

December 2024

- Designed a real-time American Sign Language (ASL) recognition system using PyTorch and OpenCV, achieving 92% accuracy across 26 gestures. Evaluated and tested models including CNN and YOLO to optimize performance.
- Preprocessed 5,000+ data points, including data augmentation and labeling to enhance model robustness and accuracy.
- Implemented an autocompletion feature to predict subsequent gestures, improving user experience in real-time.

## Time Series Analysis of Inflation and Unemployment

November 2024

- Developed ARIMA and ARDL models in R to analyze a 40-year dataset, creating an inflation trend forecast.
- Ensured data reliability through ADF stationarity testing and optimized models using AIC/BIC criteria.
- Visualized economic relationships via ACF/PACF plots, and lagged unemployment effects with the Phillips Curve.

### Panel Data Analysis of Socioeconomic Factors on Crime

September 2024

- Transformed cross-sectional data into balanced panel for 5 U.S. states over 23 yrs, enabling longitudinal analysis.
- Applied panel regression models to explain 44.5% of variance in murder rates
- Created interactive visualizations & addressed heteroskedasticity using RSE, delivering actionable policy insights.