

ARUN MITRA KOMMIREDDY

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 [LinkedIn](#)

EDUCATION

Birla Institute of Technology and Science Pilani, Hyderabad

Expected Graduation:

M.Sc. (Hons) Physics | B.E. Mechanical Engineering | Minor in Finance

June 2026

Relevant Coursework

Fundamentals of Finance · Financial Management · Security Analysis & Portfolio Management · Derivatives & Risk Management · Business Analysis & Valuation · Financial Risk Analytics · Engineering Optimization · Operations Management · Computational Physics · General Relativity & Cosmology

CORE SKILLS

Time-Series Analysis · Volatility Modeling · Portfolio Construction & Optimization · Risk Assessment (VaR) · Financial Statement Analysis · Python (pandas, NumPy) · C++ · SQL · Git · MS Excel · Powerpoint · Tableau

WORK EXPERIENCE

Summer Intern, Sales Analytics | Swiggy, Hyderabad

July 2024- Sep 2024

- Queried and analyzed ~1–3 million transactional rows using SQL to compute sales KPIs and metrics.
- Processed and cleaned datasets in Python (pandas), reducing data preparation time by over 40%.
- Built Excel dashboards (pivot tables, charts) tracking up to 10 core KPIs for performance monitoring.

Engineering Intern | HPCL Visakh Refinery, Visakhapatnam

May 2023- July 2023

- Worked with Maintenance and Rotary teams on heat exchangers and critical equipment in operations.
- Consolidated key operating parameters and computed maintenance metrics for engineering review.
- Identified operating trends, supported timely diagnostics, and followed up on actions by engineers.

PROJECTS

International Research Thesis: Computational Cosmology, Cosmic Void Size Function using Observational Data

Advisor: Prof. Federico Marulli
June 2025- present

Independently secured a competitive international thesis collaboration with the **University of Bologna, Italy**

- Designed, executed, and benchmarked a reproducible analysis pipeline to identify voids in catalogs.
- Validated void statistics against simulated mocks and applied the methodology to observational data.

Firm-Level Risk Profiling under Market Conditions:

Aug 2024- Dec 2024

- Conducted firm-level risk diagnostics using return time-series, CAPM-based market sensitivity analysis.
- Analyzed return patterns using ARIMA; modeled volatility clustering, dynamics using GARCH/EGARCH.
- Evaluated downside exposure through Value-at-Risk (VaR) to support risk-aware assessment.

Capital Allocation Strategies across Domestic and Global Markets

Aug 2024- Dec 2024

- Designed a quantitative decision framework for capital allocation strategies under varying risk appetites.
- Evaluated minimum-risk, Sharpe-optimal portfolios, and benchmarked across domestic, global assets.
- Analyzed risk-return trade-offs, volatility, diversification benefits, and sector concentration in portfolios.

Dividend Policy and Market Reaction to Dividend Announcements

May 2024- July 2024

- Performed an event-study analysis on dividend announcements to estimate returns against benchmarks.
- Analyzed abnormal return patterns across multiple announcement windows to assess market reactions.
- Examined how payout magnitude, dividend consistency, and firm fundamentals influence responses.

POSITIONS OF RESPONSIBILITY

Editor in Chief | Student Alumni Relations Cell

May 2023- May 2024

- Founded and hosted Alumni Unplugged, a flagship **podcast** (12 episodes) featuring BITS Pilani Alumni.
- Managed end-to-end publication of alumni features for BITS Echo, the official magazine of BITS Pilani.

Head of Outreach | Entrepreneurship Cell

Nov 2023- Feb 2024

- Led nationwide outreach for Launchpad (annual entrepreneurial summit), driving student participation from over 20 colleges; owned end-to-end execution of the 2024 edition on cross-team operations.

Volunteer | National Service Scheme

June 2022- Mar 2024

- Produced, edited, and proofread current affairs newsletter for the "In Sync with the World" initiative.