

ANIRUDH KROVI

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EDUCATION

NEW YORK UNIVERSITY, Leonard N. Stern School of Business

New York, NY

Master of Business Administration

May 2023

Specializations in Business Analytics, Strategy

- Recipient, Professor Robert Salomon Faculty Scholarship (full-tuition, merit-based); GMAT: 770 (99th percentile)

NORTHWESTERN UNIVERSITY

Evanston, IL

Doctor of Philosophy, Theoretical Physics

March 2021

NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

Kerala, India

Bachelor of Technology in Engineering Physics

May 2014

- *First Class with Distinction*

EXPERIENCE

INDEPENDENT RESEARCH PROJECTS

Chicago, IL

Working papers and details: <https://anirudhkvs.github.io/anirudh-fullsite/>

2025 - Present

- Built persistent homology classifiers for cyclic patterns in 3400+ city weather records (125 years) and commodity futures (24 years), enabling regime detection and trading signals
- Developed physics-inspired VAEs with latent rhythm/offset variables for arrhythmia classification (MIT BIH) and commodity price modeling
- Designed tunneling-inspired latent-space models using EBM for Bitcoin trend analysis and trading prototypes
- Created market structure frameworks combining interest rate regime detection (price-volume curvature) with news sentiment archetypes (Delta, Apple)

MCKINSEY AND COMPANY

Chicago, IL

Associate

2023 – 2025

- Built LRP model for \$20B+ pharma portfolio using 8+ datasets, layering policy scenarios for specialty, retail strategy
- Designed valuation model for \$200M+ transformation at \$250B+ pharma distributor, factoring pod structure, complexity, realization curves
- Authored top 5–ranked AI proposal for major U.S. state government (use case evaluation, setup strategy, trust frameworks)
- Built transaction tracking model for ERP rollout across 50+ public agencies, raising field clarity from ~70% to 90%+ on 50K+ records
- Built financial model for \$100M+ ERP Finance upgrade, incorporating labor efficiency and readiness factors
- Developed management strategy for \$600M+ transformation at 35K+ employee insurer, with 3-year roadmap and stakeholder journey map

NORTHWESTERN UNIVERSITY

Evanston, IL

Graduate Research and Teaching Assistant

2015-2021

- Developed dark matter models and proposed experiments achieving 10× improvement over prior results
- Built C++ programs processing 1M+ multivariable data points in 5–10 seconds (6× faster), generating distributions and new metrics; work cited by CERN collaborations
- Taught undergraduate physics with 95% (5.7/6.0) average rating across 5+ years
- Led training for 40–50 teaching assistants, improving student outcomes using multi-year feedback analysis

PHYSICS PUBLICATIONS

- Anirudh Krovi, Ian Low, Yue Zhang, "Higgs portal to dark QED," *Physical Review D*, 102(5), 055003 (2020).
- Anirudh Krovi, Ian Low, Yue Zhang, "Broadening dark matter searches at the LHC: mono-X versus darkonium channels," *Journal of High Energy Physics*, 2018(10), 26 (2018).

ADDITIONAL INFORMATION

- **Skills:** Python, C++, SQL, Excel Modeling; Energy-Based Models, Variational Autoencoders, Persistent Homology, Topological Data Analysis; LaTeX, Hindi, Telugu, Intermediate Arabic.
- **H1B visa holder** (Visa valid till August 2026 along with option of 3-year extension)