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 EBMs 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)