Andrew Lahrheim

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EDUCATION

The University of Chicago **Chicago, IL**
Master of Science in Financial Mathematics **Expected December 2025**

- Courses: Portfolio Theory & Risk Management, Python, Option Pricing, Probability & Stochastic Processes
- Honors: Alpha Scholar (Merit Scholarship)

University of Miami **Coral Gables, FL**
Bachelor of Science in Mechanical Engineering, Minor in Mathematics (GPA: 4.00 / 4.00) **May 2023**

- Honors: Summa Cum Laude, Most Outstanding Mechanical Engineering Graduate 2023, Dr. Shihab Asfour Best Senior Design Project for College of Engineering, Tau Beta Pi Engineering Honor Society, NJ GSET Scholar
- Courses: Python, Applied Probability and Statistics, Machine Learning, Numerical Analysis, Fluid Mechanics, Heat Transfer, Ordinary Differential Equations, Linear Algebra, Calculus 3, Aerodynamics

SKILLS

Computing: Python, SolidWorks, CFD & FEA Simulations, ComSol, Matlab, AutoCAD
Knowledge: Machine Learning, Statistics, Physics, Algorithmic Trading

EXPERIENCE

BlackRock **Atlanta, GA**
Aladdin Client Services Analyst **August 2023 – July 2024**

- Won 2023 Data Science Competition Time Series Prediction by innovating features with top leaderboard strategy
- Leveraged XGBoost and RandomForest to predict time to completion bucket with multiclass classification for Aladdin front end requests with 0.84 weighted accuracy; collected, cleaned, and feature engineered model data
- Originated Python script automating specific weekly customer requests saving 4 hours / week / analyst
- Manage 40+ inquiries/week from investment professionals on BlackRock's portfolio management software

University of Miami **Coral Gables, FL**
Quantitative Research Analyst - Tamid Group **January 2023 - May 2023**

- Created pairs trading strategy by leveraging statistical arbitrage and market efficiency principles statistically analyzes all S&P 500 stock pairs and trades selected cointegrated pairs based on mean reversion behavior
- Originated quantitative research backed by mathematical models in Python to generate investment strategies and manage portfolios through allocation strategies including Risk Parity, MVO, and Black-Litterman
- Constructed portfolio dashboard to monitor current positions and track relevant portfolio statistics including Sharpe Ratio, Sortino Ratio, Ex-Ante Volatility, Kurtosis, and Beta

University of Miami - College of Engineering **Coral Gables, FL**
Undergraduate Researcher - Thermoelectricity **July 2022 - December 2022**

- Derived equations and math models for multiple thermoelectric cases to analyze power generation, efficiency, and figure of merit terms, main factors in determining viability of thermoelectric generators in devices
- Analyzed and identified errors between published research papers and textbooks for use in comparative models
- Assessed derived equations by using universal laws to test theoretical behavior and determine validity of results through comparison to expected behavior; interpret results with goal to co-author research paper

Aersys Inc **Piscataway, NJ**
Mechatronics Engineering Intern **May 2021 - August 2021**

- Collaborated with team members to design solidworks models for a new system to regulate/control temperature of AerNode and operate in a range for optimal performance and lifetime
- Performed CFD and FEA simulations in solidworks on assemblies to evaluate design performance based on parameters such as temperature and stress and viewed results through plots, iterating for optimization

ADDITIONAL INFORMATION

Interests: Puzzles, blackjack, weightlifting, machine learning, distance running, teaching