

BENJAMIN D. MORGAN

bdmorgan@uchicago.edu

EDUCATION

THE UNIVERSITY OF CHICAGO

Chicago, Illinois
December 2019

Master of Science in Financial Mathematics

- **Awards:** Michael J. Steinbeck Graduate Fellowship Recipient
- **Coursework:** Regression Analysis & Quantitative Trading Strategies, Applied Algorithmic Trading, Analysis of Financial Time Series, Machine Learning, Computing for Finance in C++ & Python, High Performance Computing, Option Pricing, Numerical Methods, Foreign Exchange, Portfolio Theory & Risk Management, Stochastic Calculus, and Probability for Risk Management
- **Quantitative Trading Project:** Developed a trading strategy with a partner that utilizes fundamental, end-of-day, and sentimental data as inputs into a framework that averages the outputs of three machine learning models and predicts next month's performance based on current month's performance

AUBURN UNIVERSITY

Auburn, Alabama

- **Honors & Awards:** Auburn University Presidential Scholarship Recipient; Dean's List; Honors College Member; ADTRAN, Inc. Mark C. Smith Endowed Scholarship

Bachelor of Electrical Engineering

May 2018

- **Coursework:** Neural Networks, Random Signal and Systems, Linear Signals and Systems Analysis, and Control Systems

Bachelor of Science in Business Administration - Finance

May 2018

- **Coursework:** Financial Modeling, Investments, Financial Markets Institutions, and Security Analysis

PROFESSIONAL EXPERIENCE

TALTON CAPITAL MANAGEMENT

Chicago, Illinois

Project Lab Research Intern

July 2019 - September 2019

- Collaborated within a team of 4 to build a volatility model using different assumptions to model for various implied volatilities using CBOE's VIX model as a foundation for the new model
- Tested model with market data and different product data to compare results before reporting to upper management

KEEL POINT

Huntsville, Alabama

Investment Operations Intern

June 2018 - August 2018

- Developed a multifactor equity analysis framework using Python and the Bloomberg Python API
- Generated portfolios comprised of equity positions with variable weights dependent upon ranked factor performance over time
- Back-tested the generated portfolios and benchmarked against specific indices and equal-weighted portfolios

Financial Advisor Intern

July 2016 - August 2016

- Designed and implemented a web-scraping program to organize U.S. equity funds with current data using Excel VBA
- Streamlined advisor's process of running allocation reports by implementing an automatic report program using Excel VBA
- Proposed alternate investment recommendations for \$40MM in client portfolios as a member of a 5-person team

ITALIA CONNECT

Madrid, Spain

Financial Consulting Intern

May 2016 - June 2016

- Conducted financial and comprehensive entry mode strategic analyses for operations and international expansion into Italy
- Proposed operational recommendations for developing new revenue streams and decreasing operational costs

ENGENIUSMICRO

Huntsville, Alabama

Engineering Intern

May 2014 - July 2015

- Programmed Arduino and MSP430 microcontrollers for data acquisition from a MEMS-based sensor using C
- Developed and implemented a program to control bench-level test equipment in Excel VBA
- Collaborated in circuit design of MEMS-based vibration sensor system for the Army Research Lab

LEADERSHIP & ACTIVITIES

MORGAN FAMILY FOUNDATION

Huntsville, Alabama

Board of Directors

October 2017 - Present

- Analyze non-profit organizations as potential grant recipients & present research to board; monitor use of grant awards

THE UNIVERSITY OF CHICAGO

Chicago, Illinois

Financial Mathematics Student Board - Vice President

November 2018 - November 2019

- Collaborate within Student Board to plan educational and social events for students within graduate program

AUBURN UNIVERSITY

Auburn, Alabama

Financial Management Association - Undergraduate Member

September 2015 - May 2018

- Represented Auburn University on site-visits to company headquarters; interacted with high-ranking management & executives
- Developed and enhanced professional skills through mentor relationships, networking events, seminars and career workshop

Auburn Student Investment Fund - Undergraduate Analyst

September 2015 - May 2017

- Analyzed financial information of companies and presented recommendations to Investment Fund Executive Board
- Monitored market conditions and current events regarding companies operating in consumer services and industrial sector

Auburn for Water - Executive Board, Treasurer

May 2016 - May 2017

- Establish and manage annual budget, including donations, for student-led group that raises money and awareness about the lack of clean water in the world

TECHNICAL SKILLS, CERTIFICATIONS, & INDEPENDENT PROJECT

- **Computing Languages:** Python (incl. Jupyter), C/C++, MATLAB, R, Excel VBA, SQL, Web Dev: HTML, CSS, XML, JSP
- **Python Packages & APIs:** NumPy, Pandas, SciPy, Matplotlib, BeautifulSoup, sklearn; Bloomberg's Python API, Quandl API
- **Machine Learning Topics Applied:** Linear & Logistic Regression; K-Nearest Neighbor, Decision Tree, & Random Forest Classifier
- **Certifications:** Morningstar Direct Certified, Bloomberg Certified, Training the Street - Corporate Valuation
- **Independent Project:** Developing a predictive model to forecast NCAA basketball scores and comparing with Vegas O/U totals