# Ankul Dass

ad852@cornell.edu 210 Lake St, Ithaca, NY 14850 cell: +1 (607)-262-0484

## EDUCATION

**Cornell University,** College of Engineering, Ithaca, NY
Master of Engineering in Financial Engineering, **GPA: 4.04/4** **Expected December 2023**

**Birla Institute of Science and Technology Pilani,** Goa**,** India
B.Eng. in Electrical and Electronics with Minor in Finance**, First Class, GPA: 8.57/10** **May 2020**

*Selected Coursework:* Machine Learning, Monte Carlo Simulation, Fixed Income Securities, Stochastic Calculus, Derivative and Risk Management, Optimization, Business Analysis and Valuation, Securities' Analysis and Portfolio Management

## SKILLS & CERTIFICATES

**Technical**: Python, SQL, Matplotlib, Microsoft Office, Pandas, NumPy, Tableau | **Certificates**: Bloomberg Market Concepts

## EXPERIENCE

**Senior Analyst**, *J.P. Morgan Chase & Co.*, Mumbai, India **Aug. 2020 to June 2022**

**Auto-resizing Product**

- Developed automated credit line-sizing algorithm to set ACH exposures for Commercial Banking Clients
- Made the pre-existing pipeline more robust by increasing the frequency of checking of client usage by **6 times**
- Product is currently **deployed and live**, having proven savings in the credit exposure given to clients, along with a reduced number of overdrafts; was the **sole developer** for product enhancements and maintenance since June 2021.

**Risk Eligibility Model**

- Developed a LightGBM model to identify clients which are more likely to default and alert them to Credit Officers
- Performed feature engineering (new feature creation), categorical encoding, feature selection

**Quantitative Researcher**, *J.P. Morgan Chase & Co.*, Mumbai, India **July to Dec. 2019**

- Automated monthly KPI and KRI for monthly reporting of different credit products for Commercial Banking clients
- Performed data cleaning & data validation for model development via pandas, NumPy, and sci-kit-learn libraries
- Created probabilistic maximum likelihood bigram spell check algorithm to replace misspelled words from web extracted documents

## PROJECTS

**Machine Learning,** *Cornell University* **Aug. to Dec. 2022**

- Implemented image classification on low dimensional manifold using **k-nn** and **perceptron** for spam email filtering.
- Developed non-linear binary classifiers from scratch using **kernelized SVMs** and **CART**
- Performed image classification by developing CNNs and multi-layered perceptron model with help of **PyTorch**

**Binomial Option Pricing Model,** *Cornell University* **Sep. 2022**

- Developed a dynamic no-arbitrage N-period Binomial model to find the current price of call option, deltas & payoffs and analyzed its convergence with Black Scholes Model using **NumPy** and **SciPy**
- Analyzed impacts on different Greeks of an option with varying strike prices, maturities, initial prices & market volatilities

**Minimum Variance Portfolio Construction,** *Cornell University* **Oct. 2022**

- Constructed minimum variance portfolio of 20 stock indices for 20-day holding periods using linear regression models.
- Evaluated the performance of portfolio using different regularization methods like **Ridge**, **Lasso** and **Elastic Net**.

**Analysis of FMCG Sector,** *BITS Pilani*, Goa, India **Aug. to Dec. 2018**

- Used Porter's 5 Force Model, PEST, and SWOT Analysis for Fundamental Data Analysis
- Applied DuPont Analysis to estimate the profitability of major Indian Auto Companies based on their asset turnovers
- Conducted sustainability study for a new entrant in the coffee industry, using Porter's five force model to draw insights from the business models of Starbucks and McCafé

## LEADERSHIP EXPERIENCE

**Intern Mentor,** *J.P. Morgan Chase & Co.*, Mumbai, India **Jan. to June 2022**

- Trained three interns on the workings of team, helped them understand team's existing credit products and guided them to add more functionality for product monitoring and maintenance

## ACTIVITIES/INTERESTS

Department of Photography member at BITS Pilani, Soccer, Reading, Health and Fitness, Anime, Manga