Sneha Patel

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EDUCATION

University of Pennsylvania, The Wharton School — Philadelphia, PA
Bachelor of Science in Economics — May 2023
Concentrations: Business Analytics, Finance | *Minor*: Computer Science
Cumulative GPA: 3.85/4.00
Relevant Courses: Data & Analysis for Marketing Decisions; Big Data Analytics; Scalable Networks & Cloud Computing

WORK EXPERIENCE

Barclays Investment Bank — New York, NY
Electronic Equities Algorithmic Trading, Product Manager — July 2023 – Present

- Designs, tests, and rolls out algorithm features biweekly, leveraging Pandas and Apache Spark (PySpark) analysis to improve execution cost and quality, achieving a 15% slippage improvement
- Collaborates with cross-functional teams including engineering, research, sales, and connectivity to synchronize product features, set priorities, and meet timelines
- Engages in the creation, coding, testing, and implementation of custom algorithms tailored to client needs
- Provides real-time algorithm support using SQL and Q to enhance client flow, analyze A/B experimentation, and pinpoint opportunities for future development
- Managed the migration of over 150 clients to a new algorithm version by documenting client-specific processes and developing comprehensive migration guides, ensuring a smooth transition.

University of Pennsylvania — Philadelphia, PA
CIS 1600 (Discrete Mathematics) Teaching Assistant — January 2021 – May 2023

- Collaborated with faculty to deepen students' understanding of proof-based discrete mathematics through writing and grading 15 homework assignments and 3 exams per semester
- Taught topics including: Combinatorics, Probability, Graph Theory, Proof Techniques and other mathematical foundations of computer science

U.S Securities and Exchange Commission — Philadelphia, PA
Quantitative Research Intern — May 2021 – July 2021

- Developed a program using Python and regular expressions to further automate Company S-3 filing review process on behalf of the Division of Corporation Finance

KEY PROJECTS

Food.com Data Project *(CIS-5450: Big Data Analytics)*

- Analyzed 180,000+ recipes and 700,000+ recipe review data from Food.com via EDA and text sentiment analysis
- Tested various machine learning techniques such as PCA, K-means clustering, Random Forest models, and Neural Networks to build a model to predict recipe cuisine and quality with 75% accuracy

Spotify Unwrapped: What Goes Into Making the Perfect Playlist? *(Personal Project)*

- Analyzed listening trends and usage using personal spotify streaming data and the Spotify Web API for song metrics
- Performed k-means clustering to identify if quantitative metrics can be enough for playlist curation.

PennBook *(NETS-212: Scalable Networks & Cloud Computing)*

- Four-person group project to build a social media platform hosted on AWS using Node.js
- Used Amazon's DynamoDB, socket.io, Twitter's Bootstrap collection for UI, and Apache Spark for data analysis
- Features included: news search, home feed, automatic profile posts, network visualizer, chat platform (individual focus)

UPenn Crime Statistics, 2020 *(The Daily Pennsylvanian Analytics Staff)*

- Analyzed 1,027 crimes from the University of Pennsylvania's campus between September 2019 and November 2020 to understand trends and changes since the COVID-19 pandemic
- Created visualizations to demonstrate geographical and hourly trends of crime frequency around the university campus

SKILLS & INTERESTS

Skills: Python; Pandas; Apache Spark; R; C; Java; Javascript; AWS; Tableau; SQL; KDB; Git; Unix; Machine Learning
Interests: Hiking, Watercoloring, Playlist Curation