JACK GOETTLE

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EDUCATION

University of Pennsylvania School of Engineering and Applied Science

Philadelphia, PA

Master of Science in Engineering – Computer Information Science

Graduating May 2022

Coursework: Applied Machine Learning, Database and Information Systems, Fundamentals of High-Tech Ventures

Bachelor of Science in Engineering - Computer Information Science

Graduating May 2021

GPA: 3.52/4.0 | Minors: Math, Data Science, Engineering Entrepreneurship

Coursework: Data Structures & Algorithms, Cloud Computing, Advanced Probability, Software Design, Linear Algebra, Blockchain

Moorestown High School

High School Diploma

May 2017

GPA: 4.0/4.0 | Involvement: Student Body President, Honors and Service Society President, Varsity Track & Cross Country

Awards: National Merit Commend Scholar, National AP Scholar. SAT: 2300 (M 770, CR 750, WR 780)

PROFESSIONAL EXPERIENCE

Square

San Francisco, CA (remote)

Summer 2020

Software Engineer Intern Comcast NBCUniversal

Philadelphia, PA

Strategic Analyst Intern

- Summer 2019
- Tasked with building Hive User Defined Function (UDF) that enables efficient customer engagement classification. Built the UDF in Java using a Poisson distribution and integrated with Apache Hive to leverage parallelism in Hadoop MapReduce framework and improve SQL querying capabilities. Decreased classification runtime from 2+ hours to a few seconds.
- Built a random forest model to uncover most predictive attributes of a customer's propensity to opt into "mini tier" plan. Used voting-based methodology and 6 ML techniques (RF, Chi Square, RFE, etc.) for dimensionality reduction and classification. Model performed at 90% accuracy with 86% opt-in TPR.

Tabula Rasa Healthcare Moorestown, NI

Data Scientist Intern

July 2018 – August 2018

- Built K-means clustering algorithm using Python and SQL to better understand cohort of patients who were at low risk for medical emergency yet were paying a lot for medical services (low risk / high cost).
- Gained experience in SQL, Python, and basic data science techniques. Piloted RapidMiner software which is now widely used within company.

BDP International

Antwerp, Belgium

Supply Chain Management Intern

May 2018 - June 2018

- Summer 6-week logistics and supply chain management optimization intern. Coordinated chemical exports and expedited supply chain for chemical companies including Bayer, Covestro, and Lanxess.
- Learned SQL, shipping logistics, and toured around Europe.

PROJECTS & LEADERSHIP EXPERIENCE

Beating NBA Daily Fantasy Sports

Philadelphia, PA

Side project

January 2020 – May 2020

- Built a quantile-loss neural network and linear optimizer that beat the NBA DFS 50/50 challenge with a 63.4%-win rate.
- Wrote 8 selenium web crawlers for data collection, cleaned & engineered data, endured multiple hyperparameter tuning iterations across various ML techniques to find optimal performance, and deployed model to GCP.
- Submitted a paper on the project for Penn's graduate-level Applied Machine Learning and received the highest marks in the class.

Wharton Undergraduate FinTech Group (WUFT)

Philadelphia, PA

Vice President of Tech Trek

October 2018 - Present

- Responsible for organizing a trip to Silicon Valley each Fall to visit 12 cutting-edge companies in tech, finance.
- Coordinating coffee chats and Q&A sessions with prominent tech executives.

Beta Theta Pi Fraternity

Philadelphia, PA

Treasurer, Recruitment Chair

September 2018 – Present

- Responsible for collecting and managing an \$80,000 budget on behalf of my fraternity.
- In charge of organizing and allocating dues for philanthropy, recruitment, brotherhood, and social events.

SKILLS & INTERESTS

Programming languages & technologies

Iava **JavaScript** Go HTML/CSS SQL Swift Python **AWS** MongoDB

Interests: Hiking national parks, football, chess, skiing, cryptocurrency