

JACK GOETTLE

(856) 701 – 5116 | jgoettle@seas.upenn.edu
jackgoettle.com/ | [linkedin.com/in/jack-goettle/](https://www.linkedin.com/in/jack-goettle/)

EDUCATION

University of Pennsylvania School of Engineering and Applied Science
Master of Science in Engineering – Computer Information Science

Philadelphia, PA
Graduating May 2022

- GPA: 4.0/4.0
- 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

Moorestown High School

Moorestown, NJ

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)

Software Engineer Intern

Summer 2020

- Building OAuth solutions on the Identity and Access Management team for the Square Developer API.
- Designed and implemented a public-facing webhook in Go to notify 3rd party applications when a merchant has revoked an access token. Created internal feed for OAuth revocations, integrated with AWS, and setup Signalform monitoring.
- Won Square's Intern Hack Week. Worked on a team of 5 to construct a hardware recommendation engine and web application for guiding Square sellers in choosing a point-of-sale device. Demoed application to CEO and core team.

Comcast NBCUniversal

Philadelphia, PA

Strategic Analyst Intern

Summer 2019

- Tasked with building a Hive User Defined Function for engagement classification using a Poisson distribution. Integrated with Hive to leverage Hadoop MapReduce parallelism, decreasing 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 confidential initiative. Used synthetic minority over-sampling to balance data and voting-based methodology for dimensionality reduction.

Tabula Rasa Healthcare

Moorestown, NJ

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).

PROJECTS & LEADERSHIP EXPERIENCE

Chips.io

Philadelphia, PA

Side project

March 2020 – Present

- Building a transparent, secure, and fair Poker application with Penn Prof. Hemenway, expert in secure multiparty computation.
- Designed a distributed and cryptographically secure method for card shuffling and dealing. Using Intel SGX to support an escrow wallet, as well as transparent and efficient computation.
- Aiming to drastically cut casino KYC/AML costs through a transparent and fair escrow authority and blockchain immutability.

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 Google Cloud.
- Submitted a paper on the project for Penn's graduate-level Applied ML course and received the highest marks in the class.

Wharton Undergraduate Finance and Technology 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.
- Cold-emailed and set up phone calls with 100s of C-suite executives, coordinating coffee chats and Q&A sessions at companies including Google, Square, Wealthfront, Y-Combinator, and Kleiner Perkins.

SKILLS & INTERESTS

Programming languages & technologies

Java

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JavaScript

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Go

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SQL

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HTML/CSS

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iOS / Swift

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Python

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AWS

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MongoDB

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Interests: Hiking national parks, NFL, chess, skiing, cryptocurrency, Beta Theta Pi fraternity