

Andrew Yan

Columbia Computer Science and Math Student

Building the future, one step at a time.

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Website: <https://andrewyan200.github.io>

Github: andrewyan200

Education

Columbia University — *Computer Science, Math*

Relevant coursework: **Advanced Programming** (systems programming course. Built a fully-functional web server in C serving static content), **Honors Math A/B** (proof-based multivariable analysis and linear algebra), **Data Structures and Algorithms**, **CodePath Cybersecurity**, **Modern Algebra I** (abstract algebra), **Computer Science Theory**, **Machine Learning** (theory-based), **Probability for Engineers**, **Introduction to Cryptography** (theory-based)

Technical Skills

Programming Languages (*Python, Go, Typescript, Java, C*)

Databases (*PostgreSQL, MySQL, MongoDB, Firebase*)

Full Stack Web Development (*React, Node.js, Flask, Django*)

Data Science (*SQL, Sklearn, OpenCV, BSoup*)

DevOps (*AWS (EC2, S3, EB, RDS), Google Cloud, Docker*)

Human Languages (*English, Spanish, Mandarin*)

Industry

US Army — *Cybersecurity Engineering Intern*

May 2021-Aug 2021

- Built adversarial machine learning intrusion detection system analyzing 30,000+ network packets
- Worked on web-based system attack vector visualization tool used as internal tool by cybersecurity team
- Demonstrated a proof-of-concept Docker and Kubernetes exploit

Quantime (quantime.ai) — *Software Engineering Intern*

Jun 2020-Feb 2021

- Developed and shipped keyboard shortcuts feature and filtering mechanism from ideation to implementation in React, Material UI, Typescript, and Django. These features are used in 10,000+ instances monthly
- Applied functional programming and built internal performance and speed optimizations

GeoSafety — *Technical Co-founder*

Jul-Aug 2019

- Developed an iOS app in Swift that combats urban pickpocketing using open source city crime data
- Awarded Best Prototype out of 15 teams at the Management and Technology Summer Institute

Personal Projects

WanderNYC (www.wandernyc.app) — *Co-founder, Backend/DevOps Engineer*

July 2021-Present

- Building a live time event sourcing and itinerary generator using React, Javascript, Python, Flask, and MongoDB
- Co-developed NLP-based itinerary recommendation engine, built backend, and deployed to web

Couriers (<https://github.com/andrewyan200/couriers>)

January 2022

- Built a web app tracking a courier directory using Go and Mux backend, PostgreSQL on AWS RDS(Relational Database Service) cloud database, and deployed on AWS EC2

Columbia Undergraduate Math Modeling Workshop — *Team Lead*

Dec 2020-Feb 2021

- Worked in a team setting to build a stochastic agent-based model using Python and Keras and apply statistical and machine learning methods such as synthetic minority oversampling technique, random forests, and random walk diffusion models
- [Paper](#) was awarded Honorable Mention out of 10,000+ teams at the international MCM 2021

Wallifornia MusicTech and E-Sports Hackathon - *Backend Developer*

July 2020

- Built an e-sports analytics platform E-Insights (e-insights.ml) using Node.js and web sockets utilizing sentiment analysis to analyze livestream comments in real-time (<https://github.com/andrewyan200/E-Insights>)
- Won Best E-Sports Hack and Leansquare Accelerator coaching, competing against participants from 22 countries