Andrew Yan

Building the future,
one step at a time.

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Skills

Web Development *(React, Node.js, Flask, D3.js, Django, SQL)*
Data Science *(Scikit-learn, PyTorch, OpenCV, Beautiful Soup)*
Design *(Adobe Photoshop, Lightroom, drone photography)*

Programming Lang*uages* *(Python, Javascript, Java, C)*
Human Lang*uages* *(English, Spanish, Mandarin)*

Industry

US Army DEVCOM Data & Analysis Center— *Cybersecurity Engineering Intern* May 2021-Present

- Working on adversarial machine learning system and a machine learning detection system for network traffic analysis
- Building web-based system attack vector visualization tool used as internal tool by cybersecurity team
- Demonstrating a proof-of-concept Docker and Kubernetes exploit

Quantime— *Business Development and Software Engineering* Jun 2020-Feb 2021

- Developed, coded, and shipped keyboard shortcuts feature and filtering mechanism from ideation to implementation in React, Material UI, Typescript, and Django. My features are used in over 10,000 instances monthly
- Applied functional programming and built internal performance and speed optimizations and collaborated in an agile development setting using git

Personal Projects

Columbia Cognition and Decision Lab— *Undergraduate RA* Feb 2021-June 2021

- Applied Bayesian decision theory to study optimal stopping and multi-armed bandit problems in behavioral economics and operations research
- Built drift-diffusion models (DDMs), Markov chains, and constrained optimization models using Python and SciPy, coding 1000+ lines to process, model, and visualize over 300,000 entries of experimental data

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 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- *Best E-Sports* July 2020

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

GeoSafety— *Technical Co-founder* Jul-Aug 2019

- Developed an iOS app and wristwatch combo in Swift that combats urban pickpocketing
- Awarded Best Prototype out of 15 teams at the Management and Technology Summer Institute (www.geosafety.ml)

Education

Columbia University, *Computer Science - Math* *2020-2024*
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**, **Machine Learning** (theory-based), **CodePath Cybersecurity**

Princeton High School *2016-2020*
Relevant coursework: Linear Algebra, Multivariable Calculus, AP Calculus BC, AP Physics C: Mechanics, AP Physics C: Electricity and Magnetism, AP Computer Science, all 5's on AP exams