

## Education

**Columbia University, School of Engineering and Applied Science (GPA: 3.67)**

**Graduating May 2023**

*Majoring in Computer Science and Minor in Applied Math*

Coursework: Data Structures and Algorithms, Advanced Prog, Machine Learning, Fundamentals of CS, CS Theory, Intro to Operating Systems (Princeton CS217)

Linear Algebra, Discrete Math, Ordinary Differential Equations

Activities: Columbia Quant Group Research Board, Columbia ICPC, Application Development Initiative

**Montgomery High School – Valedictorian (GPA: 99.59%)**

**Graduated Jun 2019**

*AP (5) : Computer Science, Chemistry, Calculus BC, Physics C Mech & E&M, Language and Composition, Biology, Macro & Micro, ACT : 36*

## Experience

### Bloomberg Software Engineering Internships

#### Telemetry Alarm Management

**Jun 1 - Aug 14 2020**

Created a deployable Jupyter Notebook to analyze and triage groups of internal issues.

Increased developer visibility into ongoing issues by contextualizing Splunk time-series data with issue metadata and consolidating related issues with graph theory.

Designed time-based anomaly algorithm to quantify issue severity with numpy and pandas.

#### Bloomberg Government

**Jul 9 - Aug 23 2019**

Improved existing NLP models by applying word-vector representation embeddings (GloVe) to legislation datasets.

Created foundational tool to measure partisanship with 90% accuracy using Python, Keras, and Conv Nets.

Identified political shifts from 2013-2019 per-state, used feature extraction to find 'hot keywords' for each party.

#### Web Acquisition

**Jul 9 - Aug 31 2018**

Created online IDE to design custom web-crawling schemes, increasing user flexibility beyond point-and-click interfaces.

Utilized Kafka, ReactJS, NodeJS, and headless browsers for real-time debugging streams and custom Intellisense.

### GradeCheck

**Feb 2016 - May 2019**

Created a mobile application for the Montgomery gradebook system, available on the App Store (GradeCheck Montgomery)

Accrued over 2.4k users, worked with students and school admins for feedback and dialogue on relieving academic pressures.

Designed APIs and native iOS and Android apps with a NodeJS and MongoDB backend.

Helped students improve and focus with personalized push notifications, calendar integration, and statistical analysis.

**Flulytics (2nd Place & Facebook Social Good Prize at HackPrinceton <https://devpost.com/software/in-b4-uenza>)**

**Nov 10 2019**

Utilized public NCBI data to conduct and visualize pairwise sequent alignment analysis on various strains of diseases over time, providing insight on common mutation areas for vaccine providers.

Trained sci-kit logistic regression model to assess transmissivity risks with 85% accuracy using 2009 H1N1 pandemic data.

### Service and Community

Co-founded MontyHacks in 2016, a hackathon to spread passion for Computer Science.

Organized a Scratch Kids Bootcamp for elementary students from 2017-2019.

As Vice-President of the Montgomery Computer Science Club from 2016-2019, tutored students in languages like Java, hardware like Arduino, and competitive programming.

## Awards

**Competitive Programming C++/Python - USACO Gold, Top 3000 Code Jam Round 1**

**WWDC 17 & 19 Scholarship**

**Spring 2017/2019**

One of the 300 scholars selected by Apple to attend the 2017/19 Worldwide Developers Conference through submission of a 3D-modeled Solar System and Pictionary AI Game Swift Playground respectively.

**HackPrinceton - Most Sustainable, Facebook Data for Social Good (<https://devpost.com/software/homegrown-suk9lq>)**

**Nov 11, 2018**

**PennApps XVIII - Top 30 Winner (<https://devpost.com/software/supermaritan>)**

**Sep 9, 2018**

Designed an emergency response application with React Native and NodeJS to empower community participation.

**MHacks Nano - Top 12 Winner (<https://devpost.com/software/nano>)**

**Jul 9, 2017**

Created helpful productivity chrome-extension to monitor excessive internet usage with JavaScript and Chart.js.

**MHacks X - CalARie : (<https://devpost.com/software/calarie>)** AR Experience in Swift with Google Vision and USDA APIs to manage calorie intake.

**Languages:** Python, JavaScript, Java, C/C++, Swift, HTML5, CSS3

## Skills:

(Backend) Node JS & Express, MongoDB, PostgreSQL, Jupyter, Keras, Sci-Kit Learn

(Frontend) iOS Development - Swift, ReactJS & Redux, Android Development, JQuery, Bootstrap, EJS, Pug