# Ivan Chau

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## Education

*Columbia University, School of Engineering and Applied Science*          *Graduating May 2023*

**Data Structures and Algorithms in Java, Introduction to Operating Systems (Princeton CS217)**, Linear Algebra
Member of: Columbia Quant Group, Application Development Initiative

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

**BGOVERNMENT**                                                                                      **JUL 9 - AUG 23 2019**

Improved existing NLP models by researching and applying word-vector representation embeddings.
Created foundational tool to detect partisanship with 90% acc. using Python, Tensorflow, and Conv Nets.
Worked on a side project to conduct face verification with internal images using AWS Rekognition.

**DT WEB ACQUISITION 1**                                                                          **JUL 9-AUG 31 2018**

Created online IDE feature for custom web-crawling schemes.
Utilized Kafka, ReactJS, NodeJS, and headless browsers for real-time debugging interfaces and custom Intellisense.

**GRADECHECK**                                                                                          **2015-PRESENT**

Created a mobile student interface for the Montgomery grade-book system.
Integrated push notifications, personal calendar integration, and statistical analysis into a uniform experience.
Designed APIs and native iOS and Android apps alongside a NodeJS and MongoDB stack. Published on the App Store (GradeCheck Montgomery) with over 2.4k users.

**ROBOTICS 1403 PROGRAMMING TEAM**                                                          **2015-2017**

Won District Chairman's Award 2016.
Utilized WPI libraries to control and automate hardware components.
Created computer vision algorithms for autonomous motion mapping with OpenCV, Raspberry Pi, and auxiliary sensors.

**SERVICE & COMMUNITY**                                                                          **2015-PRESENT**

Co-founded MontyHacks, a hackathon to spread passion for Computer Science.
Organized a Scratch Kids Bootcamp and tutored students in languages like Java, hardware like Arduino, and competitive programming as Vice-President of the Computer Science Club.

## Awards

**USACO GOLD DIVISION QUALIFIER**

Used Data Structures and Algorithms in Java and Python for National HS Programming Competition

**WWDC 17 & 19 SCHOLARSHIP**

Was 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 Interface respectively.

**PENNAPPS XVIII - TOP 30 WINNER (HTTPS://DEVPOST.COM/SOFTWARE/SUPERMARITAN)**

Designed an emergency response application empowering community participation.

**HACKPRINCETON - MOST SUSTAINABLE, FACEBOOK DATA FOR SOCIAL GOOD** (HTTPS://DEVPOST.COM/SOFTWARE/HOMEGROWN-SUK9LQ)

**MHACKS NANO - TOP 12 WINNER (TABWATCH : HTTPS://DEVPOST.COM/SOFTWARE/NANO)**

Created helpful productivity chrome-extension to monitor excessive internet usage.

**MHACKS X - CALARIE : (HTTPS://DEVPOST.COM/SOFTWARE/CALARIE) ARKIT APPLICATION**

**PENNAPPS XV - HONORABLE MENTION (INNATA: HTTPS://DEVPOST.COM/SOFTWARE/INNATA), SMART FINANCE**

## Languages

Python
Java
JavaScript
C
Swift
Objective-C
Pug
HTML5, CSS3

## Skills

| BACKEND | FRONTEND |
| --- | --- |
| Node JS & Express, Flask | iOS Development (Swift and Obj-C) and Sketch |
| Databases & Metrics (MongoDB, PostgreSQL) | React (JS, Native) and Redux |
| REST API Development | Android Development |
| Tensorflow (Python / Keras, Javascript) | Web Design, JQuery, Bootstrap, JSX, EJS |