

Andrew Hong
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Education

University of Maryland College Park (August 2019 – Present)

- Double Degree, Computer Science (Machine Learning) Cell Biology & Genetics
- Honors College: Integrated Life Sciences
- GPA: 3.925

Skills

Programming Languages

- Java, Python, SQL, C, JavaScript, C#, Arduino, MATLAB, Git

Software/Programs

- Git, Google Cloud, Google Earth Engine

Libraries/Modules

- Pandas, Matplotlib, Scikit-learn, GDAL

Typescript

- HTML, CSS, Bootstrap, Latex, Microsoft Office Suite

Research/Technical Experience

National Aeronautics and Space Administration (NASA) Harvest; Dr. Hannah Kerner

Full Stack Web Developer Intern (May 2021 – Present)

- Publishing a customized app using Survey123 and ArcGIS that collects crop data
- Utilizing Google Cloud Run and Function to streamline ML analysis of a boundary
- Comparing and testing ML models to determine the most cost-effective, efficient model

National Institutes of Standards and Technology (NIST); Dr. T. N. Bhat Lab

Full Stack Web Developer Intern (May 2020 – Present)

- Published randr19.nist.gov, an online dataset containing 100,000+ search terms that utilizes NIST-developed “root and rule” to provide users with information on COVID-19
- Created knowledge graph that visualizes connections between terms using three.js
- Designed using SQL Server, JavaScript, HTML, CSS, and Bootstrap

University of Maryland, College Park (UMD); Dr. Brantley Hall Lab

Undergraduate Research Assistant (November 2020 – March 2021)

- Developed electrical circuitry to create wearable technology that measures gases in the human microbiome to diagnose underlying diseases
- Utilized sensors to measure gases and wrote Python scripts for statistical analysis
- Implemented Arduino and Python to microcontrollers incorporated into the circuitry

Projects

Impact of COVID-19 on Student Performance (July 2021)

- Collected and organized data on academic performance using Pandas DataFrame
- Visualized trends using Matplotlib

Personal Website (July 2020 – Present)

- Created a personal portfolio website using HTML, CSS, and Bootstrap

UMD Diner App [In Progress] (July 2021 - Present)

- Developing an iOS app using XCode that provides students with an interactive method of viewing daily menu items and tracking nutrition facts

UMD Course Info Program (August 2020)

- Calculates the average GPA for a course and determines the best professor for a course based on their reviews using Python
- Accesses grade and professor data of UMD courses using PlanetTerp API

Autonomous Over-Sand Vehicle (August 2019 – December 2019)

- Constructed autonomous vehicle that traversed over sand with 7 other colleagues
- Constructed electrical circuitry to control sensors and motors
- Developed navigation code to avoid obstacles using Arduino Wi-Fi Module

Leadership

Korean Student Association

Internal Vice-President (April 2021 – Present)

- Lead 10 members and manage internal affairs of the organization
- Plan general body events that promote Korean culture and inclusivity
- Manage concessions for UMD sports events where we raise thousands of dollars annually

Treasurer (April 2020 – April 2021)

- Managed finances of the organization and ensured all transactions were monitored
- Developed presentations that were utilized during online general body events

Student Teachers Enriching Proficiency through Service (STEPS)

- A student-founded 501(c)(3) nonprofit whose main goal is to promote STEM in marginalized communities

Chief Impact Officer (June 2021 – Present)

- Develop connections with local nonprofit leaders and meet with them to plan out partnership events
- Established STEPS Grant Program where give grants to local nonprofits that promote STEM

Chief Financial Officer (April 2020 – April 2021)

- Managed over \$15,000 of finances of the organization and ensured all invoices were paid
- Contacted clients to ensure smooth communication

University of Maryland, College Park

Undergraduate Teaching Assistant (January 2021 – May 2021)

- Led discussions for 12 students for HLSC322 (“Principles of Genetic and Genomics”)
- Graded assignments and exams in a timely manner
- Managed 2-hour weekly office hours where I assisted in homework assignments and answered any students’ concern

Achievements

UMD Banneker-Key Scholar (March 2019)

- Merit-based full-ride scholarship to UMD applicants
- 1 of 150 selected out of 50,000 applicants