

# AKILESH PRAVEEN

UNIVERSITY OF MARYLAND COLLEGE PARK

B.S. COMPUTER SCIENCE + CYBERSECURITY (GRADUATION: FALL 2021)

U.S. CITIZEN

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## COURSEWORK

**Algorithms • Organization of Programming Languages • Linear Algebra for Scientists and Engineers • Object Oriented Programming II • Multivariate Calculus • Intro to Computer Systems • Discrete Structures • Applied Probability and Statistics**

## TECHNICAL SKILLSET

• **Python**  
(*python-docker sdk, paramiko, logger, opencv, numpy, scipy*)

• **C, Assembly**  
(*data structures, algorithms, arduino*)

• **Java**  
(*data structures & algorithms*)

• **HTML5 + JavaScript + CSS**  
(*Firebase, JQuery, Bootstrap*)

## GENERAL EXPERIENCE

**Hewlett Packard Enterprise • Software Engineering Intern**

**Jun. 2019 – Aug 2019**

- Wrote **Python** module implementing a combination of **internal and open-source libraries** that adhered to the standards of a complex system test framework. Authored supplemental **shell scripts** to aid in automation when necessary.
- Leveraged **Docker** containers, volumes, and images to produce I/O traffic on HPE Storage Arrays in a safer, more efficient, and more customizable way than previously existing VM-based workflows. (Increased I/O potential of each array by ~**115%**)
- Thoroughly documented my project on **Confluence**, tracked/addressed issues on **JIRA**, managed codebase using **Mercurial**.
- Adhered to a strict **Agile/SCRUM** workflow: worked in sprints, consistently met goals, and presented updates during frequent standups.
- Won **1<sup>st</sup> Prize** at HPE SJC Intern Project Fair + Received **HPE Best in Class Scholarship** for my work, which found use in the PerfOps, InfraTools, and the SystemTest teams as an easier, more reliable, efficient, and customizable alternative to already existing VM-based workflows.

**Coder Kids Inc. • Python Tutor, EP Lead, Sales Associate**

**Sep 2018 – Jan 2019**

- Tailored & delivered **Python** curriculum in an entertaining, informative and challenging manner for 20+ middle school students.
- Served as a lead for 15+ tutors in the DMV area, scheduling calls, managing team members, and ensuring operations ran smoothly.

## TECHNICAL PROJECTS

**Project Safeguard**

**Spring 2017**

- Technical lead for 4 teams that worked to create a cross platform Nest-esque home security application. (<https://tinovation-project-safeguard-2017.github.io/>)
- Used Git + GitHub to create and maintain a centralized codebase.
- Wrote **HTML5, CSS3, and JavaScript**, implementing frameworks including **Bootstrap, jQuery, and Firebase** to create a front-end web interface.
- Wrote code in **Python** to implement the **OpenCV** library for computer vision to run on a Raspberry Pi. Designed a case for our product in **Google Sketchup**, then **3d printed** and successfully assembled it.

**ChemStress**

**Winter 2015**

- Worked on a cross-platform chemistry reference data application that compiled resources optimized for student accessibility. (<https://github.com/AkiPraveen/ChemStress>)
- Created web frontend in **HTML5, CSS3, and JavaScript**, utilizing **Bootstrap** and **jQuery**. Used open-source library **noodle.js** to scrape data from chemistry reference data websites, wrote algorithm in JavaScript to calculate chemical Molar Mass.

**PeopleCon**

**Winter 2014**

- Built a **facial-recognition** centric social network prototype (<https://github.com/AkiPraveen/PeopleCon>)
- Wrote code in **Python** implementing the **OpenCV** library in order to identify whether each new photo was with a 'unique' new person. 3rd Place at Tino Local Hack Day 2014
- Utilized **Imgur** and **Firebase** APIs for both **Python** and **JavaScript** to store images and text data.

## ACTIVITIES/LEADERSHIP

**HP Enterprise – Hacker Committee**

Helped organize 5 'hack days' every fiscal quarter. Provided unique insight from my experience directing multiple hackathons in high school.

**Cybersecurity Fellow – Startup Shell**

Working to create novel projects and explore topics like Networking and Computer Security with fellow members at UMD's student-run startup incubator.

**English Undergraduate Teaching Assistant**

Creating curriculum, answering student questions, and working with a team of other TAs to produce an enriching experience for a section of ENGL101 Honors.