Yash Kapoor

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Education

Expected Graduation: May 2022	**University of Maryland, College Park**

University Honors, Dean's List (S20, F20)

B.S., Computer Engineering | Minor, Mathematics

GPA: 3.6/4.00

Work Experience

May 2021 – Aug 2021

Research Assistant
University of Maryland, College Park – A. James Clark School of Engineering
- Team leader of a small team of undergraduate and graduate students
- Utilized existing resources to develop a **low-cost system** for **swarm technology** that uses an external camera to identify and **autonomously guide agents (drones)** to be used for **humanitarian acts such as disaster relief**
- Developed algorithms to estimate flight parameters of the drones and ran them on a **Raspberry Pi 4** connected to a **PiCamera** (on a supervisor drone)

Jan 2021 – May 2021

Teaching Assistant
University of Maryland, College Park – A. James Clark School of Engineering
- Assisted students in understanding a variety of topics such as **circuits**, **wireless communication**, **signal processing** and **computer vision**
- Supervised two 2-hour lab sessions and office hours weekly to provide hand-on experience with relevant technologies

Dec 2020 – May 2021

Backend Web Developer
CORA – Combating Overdoses in Rural Areas
- Used **Node.js** and **Express.js** to create an API to facilitate communication between the frontend and a **MongoDB** database
- Applied **Python** libraries such as **Requests**, **BeautifulSoup4** and **Pandas** to collect and clean data to enrich our database

Oct 2020 – May 2021

Frontend Web Developer
WMUC Radio
- Used **React.js** with **React-Bootstrap** to build an interactive and engaging user interface for a new website for WMUC-FM, a radio station licensed to the University of Maryland

Aug 2020 - Sep 2020

Frontend Web Developer
The Hare
- Utilized **Vue.js** with **Bootstrap-Vue** to revamp UI for news website with 2000+ visitors per month

Aug 2019 – March 2020

(Discontinued due to COVID-19)

STEM Tutor
University of Maryland, College Park – College of Computer, Mathematical and Natural Sciences
- Spearheaded group tutoring sessions for Computer Science and Mathematics classes to help students struggling in areas like object-oriented programming, data structures, and linear algebra

Projects (More projects at GitHub.com/Yashkaps)

Game with AI | Personal Project
- Implemented the popular board game Connect-4 for single and 2 player modes using **Python's PyGame** and **NumPy** libraries
- AI makes decisions based on **MiniMax Algorithm** with depths of 2 (Easy), 3 (Hard) or 4 (Hell)

Todo List (Fullstack Web App) | Personal Project
- Created a web app to keep track of tasks using **React.js** for frontend, **Node.js** and **Express.js** for backend and **PostgreSQL** as a database (**PERN stack)**

Email Retrieval with Automated Link Navigation | Personal Project
- Used **Google's Gmail API** with **Java** to retrieve emails and automatically searching for links to accomplish predetermined tasks

Skills

Proficient:	**Familiar:**
Python (*Pandas, Matplotlib, SQLite*), JavaScript (React.js, *Node.js, Express, Bootstrap*), HTML/CSS, MATLAB, Java, C++, SQL, MongoDB, Git	Python (*Seaborn, TKinter, PyGame*), JavaScript (*React.js*), C, Ruby, OCaml, Arduino, Android Development, Assembly