

# Vibhu Agrawal

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## EDUCATION

**University of Maryland** | Bachelor of Science in Computer Science with Honors

Expected May 2023

- Advanced Cybersecurity Minor (ACES)

GPA: 3.86/4.0

### Relevant Coursework

- CMSC 426: Computer Vision, CMSC 422: Machine Learning, CMSC 351: Algorithms, CMSC 320: Data Science (Programming in Python, Scikit-learn, Pandas), CMSC 216: Computer Systems (Programming in C/C++ and Assembly), CMSC 132: Object-Oriented Programming II (Advanced programming in Java)

## SKILLS

Java | Javascript | Python | C/C++ | Swift | SQL | HTML | CSS | MATLAB | Ruby | OCaml | ReactJS | R | Typescript | Rust

Tools: GitHub | OpenCV | Jira | Bootstrap | Keras | Tensorflow | Tailwind | XCode | MERN stack | VSCode | Linux

Languages: Hindi (*fluent*) | German (*fluent*)

## PROGRAMMING EXPERIENCE

### Research - Rezoom

Jan. 2021 - Present

- Worked with Dr. Derek Paley to analyze historical data from Veo scooters to develop algorithms to assist with global pathfinding for self driving scooters

### Club - Hack4Impact

Aug. 2020 - Present

Senior Developer | University of Maryland

- Developed websites in a team environment for non-profit organizations like Inspire and Empower which works to reduce women's barriers to enter STEM fields
- Used agile development methodology and ReactJS and Bootstrap to deliver dynamic and responsive websites to clients
- Led development of custom React-Bootstrap components and created a custom CMS using Strapi and Axios API

### Open-Source Project - Ply

May 2021 - Aug. 2021

- Contributed to open-source project Ply written in Typescript, a tool to automate REST and GraphQL API testing
- Fixed an open issue with the VSCode extension by adding functionality to interact with the graphical UI using the command palette and hotkeys

### Course Final Project - Diabetes Prediction

Jun. 2021 - July 2021

- Trained a machine learning model on diabetes dataset for final project for Data Science course, using methods like cross validation and hyperparameter tuning to get 80% classification accuracy

### Personal Project - Machine Vision AI Face Recognizer

Dec. 2020 - Jan. 2021

- Used Python and OpenCV to train a model that detects and recognizes human faces using a camera
- Capability to detect multiple faces at once and match faces if previously seen and stored in database

### Job - Ellipse Analytics

May 2019 - Aug. 2019

Data Analyst Intern | Denver, CO

- Helped with digitizing packaging, delivered on research requests by running SQL queries against the MySQL database, as well as organizing inventory resulting in more efficient and timely completion of client requests

## VOLUNTEERING

### Generation Tech

June 2019 - May 2020

Tech Assistance | Denver, CO

- Led development of an SMS Chatbot using Python and Twilio to log volunteer hours leading to more informed volunteers and smoother operation