Baibhav Vatsa

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Education

Vanderbilt University, Bachelor of Science ***August 2018 - May 2022***

- Computer Science, Applied Mathematics and Engineering Management
- **Major GPA:** 3.85/4.00
- **Selected Coursework:** Algorithms (In Progress), Operating Systems (In Progress), Mobile and Wireless Networks, and Intermediate Software Design

Skills

- **Languages:** C/C++, TypeScript, Python, JavaScript, Rust, Java, Go, Dart, HTML/CSS, Elixir, Racket, and Prolog
- **Technologies:** Linux, Git, ROS, Vue, React (Hooks), Node, Flutter, TensorFlow

Selected Experience

VandyHacks | Director of Development ***February 2020 - Present***

- Leading the team implementing and envisioning technological solutions for VandyHacks, the largest CS org on campus and the annual inter-collegiate hackathon
- Responsible for websites, Vaken (our open source hackathon registration system), synchronisation between dev and other committees, and onboarding new devs on the team.

Chalk Coaching | Full Stack Developer ***September 2019 - Present***

- Developer for NSF funded PWA based on research from Vanderbilt's Peabody College to help educators promote high quality teaching practices in Pre-K classrooms
- Leading the team implementing the messaging subsystem. Introduced Agile methodology to the team. Hold weekly Scrum meetings.

vFOSS | Mentor ***November 2018 - Present***

- Fixed issues in VSCode (code editor), Hugo (static website generator), Monet (programming language), and other open source projects
- Responsible for helping students start contributing to and using open source projects and Linux

Advanced Robotics and Mechanism Applications Lab | Intern ***January 2019 - May 2019***

- Initiated the development of cross platform GUI for the haptics devices used in the lab.
- Used C++ and Qt to implement the GUI.

Vanderbilt Robotics | Member ***August 2018 - Present***

- Programmer for the Rover Mining Challenge 2019 and Lunabotics 2020 competitions teams
- Implemented path planning algorithms for the rover using Python. Worked on mapping and obstacle detection with Microsoft Kinect using rtabmap_ros.
- Working on localization using ChArUco markers with OpenCV and Python.

Selected Projects

Hues and Lows | *TypeScript, React, Elixir*

- Full stack dev for a PWA with clean UI to help you track and record emotions over time

GradeSense | *Dart, Flutter*

- Mobile app to track and record school grades to help calculate progress

Python-minesweeper | *Python*

- Minesweeper library implementation with classes for front and back-end

Crypto Notifications | *JavaScript, Vue.js, Node.js*

- Web app inspired from Silicon Valley to email the users when a cryptocurrency goes out of the desired range. Wrote the front-end with Vue.js and the back-end with Node

TopHat Helper | *Java, Microsoft Azure*

- Used Java and Microsoft Azure's Face API to implement a face counting attendance system to help find discrepancy between the number of students in class versus marked present