Abhishek Ravikiran

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Education

Degree: Purdue University, B.Sc., Electrical Engineering **Aug '14 – Dec '18**

Certificates: Java Programming & Software Engineering (Duke Univ.), OOP in Java: Data Structures and Beyond (UCSD)

Employment Experience

Hardware Software Engineer || Sound Life Sciences – Seattle, WA **May '19 – Present**

Develop Hardware and Software platforms to use FMCW sonar on a smart speaker to monitor breathing for detecting medical conditions and emergency situations.

- Collaborated across a multi-disciplinary team of engineers to define and derive product specifications
- Integrated Off-The-Shelf products to build a prototype speaker
- Designed PCB and developed code for shutdown system of a proprietary smart speaker

Electrical Engineering Intern || Draeger Safety Diagnostics Inc – Houston, TX **Jun '17 – Aug '17**

Conduct feasibility studies, design and develop hardware and software platforms for an autonomous drone to operate in hazardous environments

- Kick-started Autonomous Drone project to aid monitoring of gases in hazardous environments
- Used Python to code algorithms for Drone prototype on Raspberry Pi and C# to connect Pi to PC using Bluetooth
- Discovered patent infringements by a competitor during competitive study of company's products versus competitors'

Teaching Assistant || Purdue University – West Lafayette, IN **Jan '16 – Dec '18**

- Taught students, guided them through assignments and projects of real-world simulations and problem solving
- Enhanced learning experience for students in class and conduct office hours to help better understanding of coursework.
- Provided feedback on upcoming exams and assignments along with grading all exams and assignments fairly

Project Experience

Vertically Integrated Projects – ECE 379, ECE 479 **Aug '16 – Dec '17**

- Acted as team lead for 2 semesters on an Autonomous Land Crawler for the purpose of monitoring inaccessible accident sites for better understanding of environment
- Designed code to process sensor readings and control turning rates and motor speeds accordingly

General Purpose Sensor – ECE 479022 **Aug '18 – Dec '18**

- Reduced noise in signals from various sources for accurate detection of appliances in a room
- Designed a 4" by 5" Printed Circuit Board to include an STM32 microcontroller and 8 environmental sensors
- Designed an algorithm using C programming to successfully detect and differentiate between simultaneously running appliances such as space heater, coffee grinder, blender and room lights

Skills and Abilities

Programming Languages: C, Python, vPython, Matlab, Java, C#, Visual Basic, HTML, JavaScript, CSS

Software Experience: BenchVue, Altium, Solidworks, EAGLE, MS Office Suite, GNU Radio, LabVIEW, Simulink, PSpice, Eclipse, Visual Studio Code, Github, LTSPICE

Languages: English (Native), Hindi (Fluent), Gujarati (Fluent), French (Conversational), Korean (conversational)