VARUN RUFUS RAJ SAMUEL D

71-G Sas Flats, Natesan Nagar, 4th Main Road, Virugambakkam, Chennai 600-092

varunrufus@gmail.com

+91 8056166327

PROFESSIONAL EXPERIENCE:

Technical Design Architect, Cambionix Innovations, Chennai, India **2017-Present**

Responsibility of coordinating and developing the projects while re-evaluating current structure and commercialising the business model.

EDUCATION:

1. **Hindustan University, Chennai, India** **2013-17**
   Bachelor of Technology, Mechatronics Engineering

PAPER PUBLICATIONS:

1. **'ROS Based Stereo Vision System for Autonomous Vehicle'** with Abhishek Balasubramaniam, and Gautham sivathan, ICPCSI, September 2017.
2. **'Low Cost ROS Based Semi-Autonomous Drone with Position and Altitude Lock'** with Abhishek Balasubramaniam, and Gautham sivathan, ICPCSI, September 2017.
3. **'Dinoponera 6 Wheeled Exploration Vehicle with Swarm Bots'** with Abhishek Balasubramanium, 21st International Mars Society Convention, August 2018.

COMPETITIVE PROJECTS:

1. **SAE Aero Modelling, Florida, USA** **February 2014**
   It was an International project, took the responsibility for designing a telemetry system with GPS Module and Altitude Measuring for Unmanned Aerial Vehicle. Team secured the 10th place in the competition among the 200 teams participated worldwide.

2. **SAT_BOT Space Debry Clearance Prototype, New Delhi, India** **2016**
   As a team manager, helped the team develop a Space Debry Clearing Bot with Lego. Our team first participated in the National Level World Robot Olympiad 2016 held in Kolkata and secured the first place in the advanced category which helped represent India in the International Level World Robot Olympiad 2016 held in New Delhi.

ACADEMIC PROJECTS:

1. **Autonomous Vehicle for Navigation using image processing in python**

   This Project was mainly fabricated to execute an Autonomous Vehicle with Stereo Version to perform obstacle avoidance in Industries autonomously with open source software and wireless GPS navigation with coordinate's measurements.

2. **Semi-Autonomous drone with Altitude and position lock using Image processing**

   This project was fabricated with Low-cost microcontroller to perform various GPS navigation and Position Lock Autonomously with open source software for humanitarian aid.

3. **Health Monitoring with sonogram**

   This Project was fabricated to make a compact ultrasonic device with Wi-Fi module to determine health parameters for elderly patients in case of emergency.

4. **Cartesian Drawing Robot**

   This Project was made to replace the drawing boards with mechanical function. It works with the help of micro-controller and Wi-Fi to write and sketch the input given in the software.

KEY COMPUTING SKILLS:

- Programming/Scripting Languages: MATLAB (Familiar), Python (Familiar), Arduino (Familiar), C, C++ (Basics)
- Frameworks and Tools: Visual Studio
- Design: AutoCAD, SolidWorks, Adobe CC
- Operating Systems: Windows, Ubuntu, Mac-OS,

ACHIEVEMENTS:

- Active Member of Python Community India. **2017-Present**
- Coordinated a National level workshop for 65 students on Robotics and Artificial Intelligence. **2016**
- Participated in SAUV 2015 conducted by NUS Singapore.
- Participated in UAE Drone for Good Challenge 2016, conducted by UAE Government.
- Participated in SAE Aero Modelling 2015, Conducted in Tampa USA.
- Member of condition monitoring society, Chennai. **2014-2016**
- Represented Chennai in National Level Table Tennis Competition. **2013**

EXTRA CURRICULAR ACTIVITIES

- Technical Course Instructor, Chinmaya vidyalaya Hr.Sec.School **2018-Present**
- Student Representative, Hindustan University **2015-2017**
- Technical Trainee, Ashok Leyland **2016**

LANGUAGES KNOWN: Tamil (Native), English (Working Proficiency), French (Beginner).