

Atharva Atre

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📍 Address

C-Wing-102, Prashal Society, Sant Janabai Road, Vile Parle East, Mumbai, India - 400057.

📖 Education

University of Mumbai, India

Fr. Conceicao Rodrigues

College of Engineering

Bachelor's in Computer Engg

Graduating **June 2020** CGPA 8

🏆 Honors & awards

4th Rank globally in Design Report 2018 SAE

The Design Report highlighted modelling, construction methods used to construct the **UAV** and telemetry and fpv subsystems.

5th Rank globally in Presentation 2019 SAE

The Presentation showcased the **UAV** and the autonomous glider along with team methodology, budget and future scope.

💻 Skills

Languages: C, C++, JavaScript, NodeJS, R, Java, Python, jQuery, SQL, MATLAB, HTML, CSS.

Framework: Ionic, React Native, DroneKit-Python.

Tools: GIT, GitHub, Eclipse, AWS, CodeBlocks, Keras, NetBeans, Atom, Android Studio, Microsoft Office Suite (Word, Excel, PowerPoint), Google Office Suite (Drive, Docs, Sheets), Visual Studio, MS SQL Server, PyCharm, PostgreSQL.

📁 Technical Experience

Redwing Aerospace Labs- Software Developer **October '19- February '20**

- Designed and implemented NPNT feature to comply Indian regulations, making Redwing **1st company to achieve the feat in BVLOS category.**
- Designing a customized UTM which interfaces with all Redwing Drones and Medical Delivery orders for daily operations.
- Developing a Flight Management System APP on Ionic Framework.

Bennett University, Delhi: Research Intern **October '18- October '19**

- Developed a Smart Farming App 'Farmitra' which uses Deep Learning and genetic algorithms to detect plant leaf disease detection to help Indian Farmers.
- Android Application development using React Native. Android SDK / Studio / APIs / Frameworks, with successful app released to the Play Store.
- The App has features like plant disease detection through image processing, quality assessment, Forum Discussion and Remedy Tips.
- Keras, TensorFlow Nodejs, Flask, Imageai, h5py are the technology stack used.

Team Vaayushastra, Lead Software Engineer **June '18 – March '19**

- Headed the GUI department of 6 engineers, assigned tasks and deadlines, ensured proper sensor interface with software.
- Developed GPS assisted payload trajectory prediction algorithm on MATLAB.
- Worked on **autonomous flight control system** and PID control of actuators using microcontroller.

Team Vaayushastra, Graphical User Interface Developer Jun '17 – May '18

- **Worked in object detection using OpenCV python.**
- Implemented a real time plane model to reflect orientation changes of UAV.
- **Worked on transmission between ground station and UAV.**
- Designed the website of Team Vaayushastra 2018 using Bootstrap and jQuery.
- Performed regular code reviews leveraging strengths in analysis and debugging.

♥ Projects

AI – Drone for automated delivery (ongoing)

- Developing an intelligent drone system to aid businesses and reduce delivery time
- **Developing an APP** to showcase Drone-Inventory and Delivery status using Ionic.
- DroneKit, MAVLink, SITL and Ardupilot are used with python to control the drone.
- Drone will have object detection and avoidance capabilities.

Smart AI News App

- Developed a Smart News app which gave users personalized news and flagged fake news. Random forest classifier, stochastic gradient descent and web-scraping using python were used for fake-news detection.

Teen Rehabilitation Website

- Developed a full stack website with bootstrap at front end and SQL database at backend with Django framework to aid teenagers to rehabilitate from smoking, drugs etc. by connecting them to doctors and Rehabilitation Center.

📄 Certificates

Flying Car-Autonomous Flight Engineer Nanodegree: **Udacity- March '20**

Drone Programming for Software Development : **Udemy- August '19**

🎯 Extra-Curricular

Sports

- National level gymnast (10-year career)
- Volleyball enthusiast.

Social

- Member of **National Social Service** for two year dedicating more than 120 hours for social work.
- Part of Debate Society CRCE, and a debate moderator.
- Multi-Lingual; Can communicate fluently in 6 languages (English, Marathi, Hindi, Gujarati, Sanskrit and Japanese)