

Abishek Arumugam Navukkarasan

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Objective:

A Passionate Interdisciplinary engineer with in-depth experience in open Source development for Tech Startups in the Mechanical and Aerospace industry. I design, make, weld, fabricate, solder and code. Looking for a challenging career which demands the best of my technical and analytical skills, and helps me in broadening and enhancing my current skills and knowledge.

Experience

Development Test Engineer / Agnikul Cosmos Launch vehicle Pvt. Ltd.

January 2019 - August 2019, Chennai

- Designed, developed and built test systems to verify, validate and qualify systems and subsystems of a small satellite launch vehicle to meet and satisfy safety requirements.
- Oversaw the development of the design that addresses a defined need, managing multiple disciplines and speciality groups required to make it a reality.
- Performed system hazard analyses.
- Planned, defined, demonstrated high-level international standards on test systems.

R&D Intern / Lema Labs Technologies Pvt. Ltd.

December 2017 - September 2018, Chennai

- Developed and designed Robotic kits from concept and proof of principles to specifications and implementation.
- Coordinated with internal or external engineering teams on new designs and capability improvement and validation.

Project Intern / RapidFab 3D Engineering Solutions Pvt. Ltd.

January 2018 - April 2018, Chennai

- Developed a SCARA Robotic-arm 3D Printer.
- Worked from initial concept and design to production phase, machining, prototyping, testing, and release.

R&D Hardware Intern / Rent&Make Virtual Makerspace

July 2016 - December 2016, Chennai

- Researched, Designed, Developed and Optimised Open-source hardware.
- Was responsible for managing and deployment of 4 major products to customers.

Courses

Kaizen Robotics Program / Lema Labs Technologies Pvt. Ltd.

July - August 2016, Chennai

Robotics development using embedded C.

CAD Using CATIA / AU-FRG Institute for CAD/CAM, Anna University

December 2015, Chennai

A Computer-aided Designing course using CATIA.

Education

M.S, Aerospace Engineering/ Herbert Wertheim College of Engineering

University of Florida, Gainesville

Spring 2021 - Present

Skills:

Design and Analysis:

Dassault Systèmes:

CATIA, SolidWorks

AutoDesk:

AutoCAD, Inventor, Fusion 360

Analysis:

Simscale, Ansys

Programming Languages:

C++, Python

Libraries:

Numpy, Scipy, Pandas, Sci-kit Learn

Frameworks:

Fast.ai, Pytorch, Tensorflow, Keras

Areas of Interest:

- ★ Aerospace Robotics
- ★ Deep Learning
- ★ Internet of Things
- ★ 3D Printing
- ★ Launch vehicles
- ★ Autonomous Space Systems
- ★ Space Robotics

Personal Details:

Languages: English, Tamil.

Projects:

Recognizing Cats Vs. Dogs

Image classification model based on CNN

Using fast.ai

December 2018, Chennai

SCARA Robotic Arm 3D Printer

Final Year Undergraduate Project

December 2017 - May 2018, Chennai

Lab2Moon

Team Algol/ Team Indus

August 2016 - December 2016, Chennai

Autonomous Tractor

Autodesk India Design Week

November 2017 - December 2017, Chennai

Improved Prusa i3 3D Printer

Design and Fabrication Project

December 2016 - March 2017, Chennai

Extra-Curriculars:

- NCC "C" Certified as of September 2017
- Student Ambassador of Kurukshetra 2k17
- Participated and Won prizes in several National level Symposiums and Student Conventions.
- Public Relations Head and Web Developer of *Mars2k17*, 19th National Level symposium conducted by the Department of Mechanical Engineering, Sri Sairam Engineering College.
- Active Participation in Workshops and meetups of Local online communities, related to IoT, 3D Printing, Makerspace, AI/Machine learning.
- Was one of the finalists of Autodesk India Design week 2017 competition.