

EDUCATION

- 1. Master of Engineering | Robotics** 2021 - 2023
University of Maryland, College Park (A. James Clark School of Engineering)
- 2. Bachelor of Engineering | Computer Engineering** 2014 - 2018
Savitribai Phule Pune University (K.K.Wagh Institute of Engineering Education And Research, India)

PROFESSIONAL/INTERNSHIP EXPERIENCE

- 1. FinIQ Consulting India Pvt. Ltd. | Software Developer** July 2018 - July 2021
Full-stack web developer of financial products, for investment banks, based on .Net 4.5 framework using C# and JavaScript. Duties involved developing web apps, REST and SOAP web services, SQL-database scripting, and server management alongside performing secure source code-review, APT-security testing before every client release, unit testing and code maintenance using agile SCRUM methodologies and hosting on Azure and AWS.

PROJECTS

- PROFESSIONAL PROJECTS | FinIQ Consulting India Private Limited** July 2018 to July 2021
RM Workstation And Client portfolio and collateral management system
Details: Developed web application consisting of multiple modules for a relationship manager. Handled communication with the Singapore based client to discuss issues and new requirements every sprint. Troubleshooting issues encountered in the UAT client environment. Worked on design and development of responsive client portfolio management systems including HTML5 and CSS for high net wealth management investment banks. Included development of interactive dynamic dashboards, and API's.
- BACHELORS FINAL YEAR PROJECT | Real-time Helmet Detection of Bike Riders** June 2017 to May 2018
Automated helmet detection using video surveillance and generating a database with license plates of offenders. Included dataset creation for helmets by web scraping and training a CNN module using machine learning in python. Followed by KNN based text recognition for extracting the license plate data.
- Design of a Dual Pendulum LQR and LQG Controller:** December 2021
Design and analysis of an LQR and LQG controller or pendulum attached to a frictionless moving crane. Using Control system concepts and Matlab.
- ABU ROBOCON:** June 2015 to March 2018
Designed, prototyped and developed 5 robots primarily in C++ over 3 years for Asia-Pacific Robotics contest, including a PID stabilized single actuation line follower and completely autonomous shuttle launching robot with direct-vector-routing algorithm based path planning. Vice captain of a team of 15. Helped in manufacturing robots in the college workshop by scratch.
- Food-E : Diner robot:** December 2021
Modeling and simulation of a food serving robot in a diner with 6 degree of freedom robotic arm fixed on a differentially driven cart model and the implementation PID control, forward-inverse kinematics to simulate the task for autonomously navigating and completing a predefined pick and place job.
- Jackal swarm rescue:** December 2021
Development of a ROS based system that deploys a swarm of 20 Clearpath-Jackal robots in a gazebo environment and rescues an object by pushing it to a defined end goal. Developed using pair-programming in a team of two.

PUBLICATION

- Journal Name:** International Journal for Innovative Research in Science & Technology
Paper Title: [Real Time Automatic Helmet Detection of Bike Riders](#) | Volume 4, Issue 11, April 2018.

COMPUTER SKILLS AND TECHNOLOGY STACK

Windows, Linux.

C, C++, Python, C#, VB.NET, HTML, CSS, JAVASCRIPT, JQUERY, MS-SQL.

Control Systems, ROS, CoppeliaSim, Gazebo, RViz Git, OpenCV, Arduino, ASP.NET, Bootstrap, Burp Suite, AWS, Azure