

FIRSTNAME LASTNAME

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EDUCATION

Tech Finalists: International Robotic Competition (eYRC) & Bachelor's Capstone Project in Mechanical Department
Conferences: IEEE, American Control Conference ACC'24 | Indian Institute of Science, I-4AM'22 | Delivered 2 talks
Courses: Linear Algebra | Sequential Decision Making | RL | ML | UAVs | Perception | Optimization | Controls | PDE

EXPERIENCE

- Brainchip, *Solutions Architect Intern (Robotics & RL Specialist)* | Remote (California, USA) May 2023 - Aug 2023
- Implemented 3D models and ROS-joints controlled through Q-Learning, RL model operated on AKD1000 Chip.
 - Accelerated development by 40%, delivered a fully functional AI-controlled robot from scratch.
 - Engineered the swift transition of neural network designs from TF to BrainChip's MetaTF framework.
- Indian Institute of Technology Bombay, *Robotic Software Engineer Intern* | Remote (India) May 2020 - Aug 2020
- Led an 8-person team to develop a fiducial-marker-based **localization** model for an unstable camera feed.
 - Optimized the localization model using V-rep for real-time camera feeds, achieved a calibration error of $\leq 0.5\%$.
 - Orchestrated design, combined rule-based script and unit tested to validate auto-evaluators with 95% coverage
- e-Yantra, *Robotic Engineer (Co-Founder and Team Lead)* | India, Aug 2019 - July 2020
- Coordinated a 4-member team to National Finalist Status (Top 0.3%), built a multi-tasking robot from scratch.
 - Optimized **pathfinding**(A* & Dijkstra) algo. & actions, reduced execution time by 22%, enabled faster navigation.
 - Integrated IR, proximity sensors for perception & encoder motors, Servos for autonomous actions | Used **CNC**.
- ABU Robocon 2020, *Robotic Engineer (Team Member)* | India, Jan 2019 - Feb 2020
- Directed team efforts, achieved top 15 (national) in ABU Robocon Stage 1 through innovative robot design.
 - Engineered a 3-wheeled omni-drive system, achieved precise movement in any direction for the Pass Robot.
 - Modelled throwing hand compliance with pneumatics parameters using the Catapult mechanism and deployed.

SKILLS

Languages	Python, C/C++, C#, embedded C, Java, Catkin, CUDA, CMake, Matlab, Git, Bash, LaTeX, Vim, PCL, I2C
Robotics	ROS 1/2, V-Rep, Gazebo, Ansys, MoveIt, MuJoCo, FEA, CFD, Arduino, AtMega 2560, Sensor Fusion, PLC
Software	Linux, Tensorflow, Pytorch, Docker, OpenCV, ZeroMQ, B0RemoteAPI, CorelDraw, Solidworks, Fusion360
Certifications	Robotics Software Engineer, Udacity Nanodegree – (2023) Self-Driving Cars, University of Toronto – (2023)

PROJECTS