



Shivam Sharma

WORK EXPERIENCE



ANALOG DEVICES INC., *Mechatronics Engineer*

Jan 2025 - Present

Automated semiconductor fab using advanced computer vision and critical decision-making. Applied object detection, recognition, and pose estimation to increase fab throughput. Built a vision pipeline to process images and accurately guide robots for pick-and-place operations.



IPAWTROL, *Computer Vision Engineer*

May 2024 - Aug 2024

Calibrated intrinsic and extrinsic parameters for stereo cameras and an IMU on a quadruped. Developed a CUDA-accelerated, high-throughput ROS 2 driver for stereo cameras. Implemented visual SLAM and obstacle avoidance for a home-security system.



DANFOSS INFO SOLUTIONS, *Robotics Engineer*

May 2023 - July 2023

Designed advanced path-planning algorithms for autonomous vehicles. Optimized path length and speed using a custom planner, achieving a 45% reduction in curvature. Built multithreaded obstacle-avoidance software using LiDAR, yielding a 40% memory efficiency gain.

EDUCATION



M.SC. ROBOTICS ENGINEERING

August 2021 - December 2023

Worcester Polytechnic Institute

Learned and excelled in computer vision, robot control, motion planning, and on-device deep learning. Designed complex team-based projects that automated industry tasks and developed teamwork skills.



B.TECH MECHANICAL ENGINEERING

July 2017 - July 2021

National Institute of Technology, Kurukshetra

Studied fluid mechanics, thermodynamics, strength of materials, CAD, machine design, and C/Matlab programming. Completed an internship at Maruti Suzuki focused on supply chain management as a final-year project.

Class X & XII – CBSE

Kendriya Vidyalaya

2014, 2016

Class X: CGPA 9.6/10 | Class XII: 92%

SKILLS & INTERESTS

Languages

Hindi Native
English Professional

Technical Skills

Python Computer vision, automation, ROS 2
C++ High-performance robotics software
ROS 2 Drivers, perception pipelines, SLAM
OpenCV/PyTorch Detection, pose estimation, camera calibration

Interests

Tennis Competitive play, endurance training
Fitness Strength training, conditioning
Robotics Autonomous systems, vision-based hand manipulation