



Shashwat Shah

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Bachelor in Technology, Instrumentation and
Electronics Engineering
Your university, India

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GitHub Profile

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RESEARCH EXPERIENCE

- Adiance Technologies** *Ahmedabad*
Robotics and Automation Intern *jan 2023-july 2023*
 - Streamlined new CCTV assembly lines using adaptive robot control, custom applications, and AI-powered obstacle avoidance, boosting efficiency and safety.
 - Ensured robotic safety via formal controller verification - zero-collision zones for multiple agents.
- Institute of Technology, Nirma University** *Ahmedabad, India*
Research fellowship *May 23 – Sep 23*
 - Introduced a **dual short-wave NIR based non-invasive based glucose and cholesterol** by feeding into **ML model implemented on arduino based** low cost approximately 20–25 USD device iGLU for CGM. The error margins for iGLU are improved compared to other noninvasive systems. This research is done under **Dr Pratik Jain**
 - My Research **received "Dr. Elizabeth and Dr. Verkey Cherian Award"** (best research) from IIT, and also received **funding & aiding** in cancer research & tissue engineering

WORK EXPERIENCE

- Adiance Technologies** *Ahmedabad*
Robotics and Automation Intern *Jan 23 - jun 23*
 - Streamlined new CCTV assembly lines using adaptive robot control, custom applications, and AI-powered obstacle avoidance, boosting efficiency and safety.
 - Ensured robotic safety via formal controller verification - zero-collision zones for multiple agents.
 - Enhanced warehouse productivity by implementing an Automated forklift system and implementing novel packaging techniques to streamline operations.
- Simplyfy Solutions** *Los Angeles, USA*
Machine Learning intern *Jun 23 – Nov 23*
 - Harnessed Image processing and ML algorithms** to Optimize database sorting through custom ML algorithms, Develop innovative virtual body measurement algorithms.
 - Utilize MATLAB Vision Toolbox** or 3D geometric transformation estimation, enhancing image analysis capabilities.

EDUCATION

- Institute of Technology, Nirma University**
2021-present *Major in Electronics and Instrumentation*
- Institute of Technology, Nirma University**
2023-present *Minor in Robotics and Automation*

PROJECTS

- 3d Printer Design and Assembly** | Designed a 3d printer which can print upto 220 x 220 x 240 mm dimensions which can accurately Works with common filaments like PLA, ABS, PETG, and TPU.It can achieve layer heights of 0.1-0.4mm
- AquaGardner**|The ultimate autonomous field manager is constructed with a fully 3D printed Caterpillar track. It possesses the ability to recognise the height of grass and identify obstacles. Additionally, it can map the entire field utilising Visual Slam technology. Additionally, establishing a pathway to carry out watering and lawn levelling tasks on any green field in order to minimise the amount of time humans spend using grass cutting instruments.)
- QuickBite Vending Machine** |Vending machine which can cook Indian meals with Robotic hands

TECHNICAL SKILLS

Key Skills: Computer Vision, Deep Learning, Trajectory Planning and Control, Software-Hardware Interface

Languages: C, C++, HTML/CSS, Matlab, Ladder Logic, Python, Assembly

Hardware: Jetson Nano, Raspberry Pi, Arduino, Esp32, NodeMCU, PIC micro-controllers

Softskills: Leadership, Management, Teamwork, Communication, Creative thinking, Analytical & Problem solving

LEADERSHIP / EXTRACURRICULAR

– Academic achievements

- * President of ISA Students' Chapter Nirma University 2024
- * Joint Secretary of ISA Students' Chapter Nirma University 2023
- * Technical Director at Invincible Leader's Club 2024
- * Idea lab project funding By Nirma University
- * Winner of Avishkar competition 2019
- * Winner of Robocup competition 2019
- * Made 2 AgroBots with applications related to garden maintenance and crop management
- * Made a Bot for school stationery transport