

SRIVATSAV N.D.

+91 9943171536 | ✉ srivatsavsurya11@gmail.com | in srivatsav n.d. | 🌐 srivatsavsurya

EDUCATION

Thiagarajar College of Engineering

B.E. in Mechatronics Engineering | CGPA: 8.39/10

Madurai, Tamil Nadu

2020 – 2024

buildspace

Project-based 6-week Program

Remote

2023 – 2024

PROFESSIONAL EXPERIENCE

Software Development Engineer | alfaTKG

Jun 2024 – Present

- Developed AI-powered chatbot and scheduling systems, automating 70% of customer queries.
- Delivered a full-stack software suite for sheet metal manufacturing with real-time monitoring and analytics.

Robotic Simulation Engineer Intern | alfaTKG

Dec 2022 – Aug 2023

- Generated high-precision robotic simulations using RoboDK for Yaskawa robots, improving deployment accuracy.
- Automated robot programming workflows, cutting process time by 60%.

Open Source Developer | Timechain Labs

May 2023 – Jul 2023

- Integrated Bitcoin Lightning Network backend for processing 10K+ micropayments daily.
- Designed "Add to Wallet" UI/UX for neucron.io, increasing engagement by 40%.

Mechanical Design Engineer | Team Eureka

Jun 2021 – Nov 2022

- Contributed to a cross-functional team that won SAE-ISS 2022, supporting the management of a Rs.50K budget and advancing FEA for optimized bicycle frame design.

TECHNICAL PROJECTS

IntelliDrip | IoT, Arduino, ESP32, Cloud Integration | SIH (Cyient): SK2



- Built an IoT-based IV monitor with real-time alerts and predictive analytics, reducing attention time by 65%.
- Designed a modular, low-cost device compatible with 90% of IV stands.

AutoDrive | Python, Computer Vision, ADAS, CARLA, CAN, openpilot



- Initiated development of a Level 2 autonomous driving stack targeting 95%+ lane detection accuracy using CARLA simulator and CNN-based perception.
- Designed real-time object detection and CAN-based vehicle control framework inspired by openpilot architecture.

Pothole Detection & Reporting System | IoT, Raspberry Pi, ESP32, Cloud | SIH (DRDO): NR1177



- Created ML model for pothole detection with 92% accuracy using edge video feeds.
- Developed scalable cloud backend with mobile reporting app for municipalities.

TECHNICAL SKILLS

Programming: Python (OpenCV, TensorFlow, PyTorch, NumPy, Pandas), C/C++, JavaScript/TypeScript, HTML/CSS, SQL

Technologies: Git, Linux, Docker, Arduino, Raspberry Pi, NodeMCU

Design: SOLIDWORKS, Fusion360, EasyEDA, RoboDK

Industrial: Bosch Rexroth PLC, Yaskawa Robots, MATLAB/Simulink, AI & Machine Learning, Digital Twin, Industry 4.0

AWARDS & ACHIEVEMENTS

Tamil Nadu Student Innovators (TNSI)

2022

Selected among top 3 from 13,300+ applicants

EDII-TN

- Secured Rs.1 lakh funding and 6-month mentorship program for IntelliDrip project, leading to successful prototype development and clinical trials in 2 hospitals.
- Featured in Tamil Nadu Innovation Hub and recognized by State MSME Minister for developing cost-effective healthcare solutions.

SAE-ISS Bicycle Design Competition

2022

Overall Championship

National Level

- Secured first place among 45+ teams nationwide, winning as Overall Performance Bicycle.

Technical Achievements

2020-2024

Various Competitions & Certifications

- Achieved 1st place in National IoT Quiz Challenge among 500+ participants, hosted by AICTE in collaboration with AWS and Intel.
- Top 5 finalist in SIH 2023 (Hardware Edition) – Problem SIH1375 by Ministry of Power; informally recognized as runner-up by jury.