SOURAV VERMA

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EDUCATION

Chandigarh University   Aug 2022-May 2026

Bachelor of Technology in Computer Science with Artificial Intelligence & Machine Learning (AIML)

SIH Winner '23, 9+ Hackathon Wins, 2x Super Achiever (CU 2022, 2023)

WORK EXPERIENCE

National Changhua University of Education, Taiwan
Machine Learning Intern Link   2024

- Developed and optimized a Sign Language Translation Transformer Module using the How2Sign dataset.
- Increased ASL translation accuracy by 15%, improving the model's accuracy up to 98% .
- Achieved a frame rate of 24 FPS for real-time performance.

Skills: Transformer, Python, LSTM, CNN, NLP, Computer vision.

IGSCS
Software Engineer Intern Link   2023

- Developed a SaaS platform using LoRaWAN technology for real-time temperature and humidity monitoring, boosting OEE and reducing audit and maintenance costs by 40%.
- Automated data collection with wireless sensors and cloud-based analysis, ensuring consistent environmental conditions in industries like food storage.
- Deployed the project in 3 factories

Skills: Python, Node.Js, MongoDB, Linux(Ubuntu), React, Next.Js & LoRaWAN.

PROJECTS

SaaS application for Industry Digitalization, Automation 4.0 Link
Collect all metrics of machines running in the industry for early error detection, energy saving, and actuating next steps based on sensor data collected.
Tech Stack: C++, Python, Node.js, MongoDB, Pandas, LoRaWAN Technology

Credit Card Fraud Detection Link
Fraud Detection model based on anonymized credit card transactions The dataset contains transactions from European cardholders. This dataset presents transactions that occurred in two days, where we have 492 frauds out of 284,807 transactions. The dataset is highly unbalanced, the positive class (frauds) account for 0.172
Tech Stack: Python, Scikit-learn, Pandas, NumPy, Matplotlib, Seaborn, TensorFlow/Keras ,Logistic Regression.

Speed Control Device Integrated with V2V Communication and Google Maps Link
Designed and integrated a speed control device with V2V communication and Google Maps to ensure rider safety and prevent traffic violations.
Tech Stack: Python, Matlab, OpenCV, TensorFlow, LiDAR, Image Processing, V2V communication, LoRa, GSM.

SKILLS

DSA, AWS Services, Object Oriented Programming, Docker, Database Management Systems, TensorFlow, Cloud, IoT

Languages	Python, C++, C, HTML5, CSS3, JavaScript, React/Angular, Node.js, Express
Databases:	MySQL / NoSQL
Soft Skills:	Analytical Thinking, Problem Solving, Team Collaboration, Communication, Lead

PUBLICATION

AIP Conference Proceedings: Smart Protective Headgear for a Rider   2023
Filed a patent for Simultaneous Charging of EV Vehicles While Moving (IoT & Aeronautical Engineering).