

Saurabh Sonal

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SKILLS

- **Languages:** C++, Python, Java, SQL
- **Frameworks:** Spring Boot
- **Tools/Platforms:** Oracle, Keil, Linux, Tableau, Arduino IDE, Microsoft Excel
- **Soft Skills:** Problem-Solving Skills, Team Player, Project Management

INTERNSHIP

- **NABM- National Academy of Broadcasting and Multimedia, Delhi** Jun 24 – Jul 24
Summer Internship
 - **Assisted in technical evaluations and content management** while learning about signal processing, camera studio and transmission protocols at NABM, Delhi.
 - **Gained hands-on experience in broadcasting technologies** through practical exposure to studio operations, transmission systems, and digital media workflows.
 - **Industrial visit** at Door Darshan Mandi House, T.V. Tower Pitampura and DTH Todapur.

PROJECTS

- **ESP32-Based Real-Time Sign Language Translator** Mar 25
Developed a real-time sign language translator using ESP32-CAM, trained a CNN model on the Sign Language MNIST dataset and deployed via TensorFlow Lite for on-device inference. Implemented image preprocessing (greyscale, resizing, normalization) and optimized model for embedded deployment.
Tech: ESP32-CAM, TensorFlow Lite, Python
- **AI-Based Stolen Vehicle Detection System using ESP32-CAM, OCR & ANN** Feb 24
Developed an AI-powered vehicle security system that detects stolen cars using ESP32-CAM, Optical Character Recognition (OCR), and an Artificial Neural Network (ANN). The system captures a license plate image, extracts the text, and checks against a stolen vehicle database using a trained ANN model. Developed the OCR pipeline to extract license plate numbers using OpenCV & Tesseract.
Tech: ESP32, TensorFlow, Tesseract OCR, Flask
- **Incoming Mobile Call Indicator using CA3130** Sep 23
Engineered a circuit that detects incoming mobile calls and indicates them using the CA3130 operational amplifier. Designed and implemented a detection circuit that effectively identifies call signals from a mobile phone. Utilized the CA3130 op-amp to amplify and process the signals for visual indication. Successfully demonstrated the functionality of the circuit in practical applications.
Tech: CA3130 Op-Amp, Analog Circuit Design

CERTIFICATES

Communication Networks NPTEL	Apr 25
NABM, Prasar Bharati Summer Internship	Jul 24
Create Charts and Dashboards Using Microsoft Excel Coursera	Apr 24
HACK-IOT Hackathon	Feb24
Tensorflow2.0 Udemy	Jan 24
Community Development Project (NGO)	Jun 23
Microcontroller Embedded C Programming: Absolute Beginners Udemy	Apr 23
Critical thinking for better judgement LinkedIn	Feb 23

ACHIEVEMENTS

- Actively participated in club workshops and events, fostering a strong understanding of embedded systems and practical computing.
- Collaborated with a team of 4 to develop a solution for AI Thief detection for Vehicle.
- Recognized for creativity and artistic skills in Drawing Competition.
- Volunteered for a social cause (NGO).

EDUCATION

- **Lovely Professional University** Punjab, India
Bachelor of Technology – Electronics and Communication Engineering; CGPA- 7.69 Since August 2022
- **DAV Public School** Hehal, Ranchi
Intermediate; Percentage: 78.8% April 2019 - March 2021
- **DAV Public School** Hehal, Ranchi
Matriculation; Percentage: 89% April 2006 - March 2019