

YOGANAND S

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Education

Amrita Vishwa Vidyapeetham, Coimbatore

2023 – 2027

B.Tech in Computer Science and Engineering | CGPA: 7.28

Experience

Bharat Heavy Electricals Limited (BHEL), Bengaluru | *Project Intern* **May 2026 – Jun. 2026** | [Certificate](#)

- Developed a full-stack AI-powered Invoice OCR system using Next.js, FastAPI, EasyOCR, and PostgreSQL for automated invoice digitization and intelligent data extraction.
- Designed OCR pipelines with image preprocessing and built a dashboard for invoice upload, validation, and structured data management.

Infosys Springboard | *Project Intern*

Oct. 2025 – Dec. 2025 | [Certificate](#)

- Developed an automated PCB defect detection and classification system using deep learning and computer vision.
- Achieved 97% classification accuracy using EfficientNet-B4 with a real-time Streamlit interface.

Loginware Softtec Pvt. Ltd. | *Intern*

May 2025 – Jun. 2025 | [Certificate](#)

- Worked with Raspberry Pi, embedded systems, PCB assembly, sensor interfacing, hardware testing, and circuit debugging for IoT applications.

Projects

Circuit Guard | *PyTorch, OpenCV, Streamlit, Efficient Net-B4*

- Trained Efficient Net-B4 model using PyTorch achieving >97% classification accuracy with image pre-processing and data augmentation techniques.
- Built full-stack web application with Streamlit for real-time defect visualization and backend pipeline processing images in ≤ 5 seconds.
- Implemented OpenCV-based image subtraction and contour extraction for precise defect localization on PCB images.

Invoice OCR & Intelligent Data Extraction | *Next.js, FastAPI, EasyOCR, PostgreSQL*

- Developed a full-stack OCR system to automate invoice digitization by extracting structured information from scanned invoices.
- Built a FastAPI-based OCR pipeline with image preprocessing and EasyOCR to improve text extraction accuracy across varying invoice formats.
- Designed an interactive Next.js dashboard with PostgreSQL integration for invoice upload, validation, storage, and real-time data management.

Surgical Instrument Recognition | *YOLOv12, Python, Computer Vision*

- Created a 1.5K+ image dataset through web scraping comprising 23+ classes of surgical instruments.
- Trained a YOLOv12 object detection model achieving 83% accuracy for real-time surgical instrument recognition.
- Co-authored a research paper accepted for presentation at the International Conference on Frontiers in Advanced Computing and Emerging Intelligent Technologies (FACEIT 2026), organized by NIT Warangal.

Technical Skills

Programming Languages: C++, C, Python, Java, JavaScript, SQL, HTML/CSS, Julia

Machine Learning: PyTorch, TensorFlow, OpenCV, YOLOv12, EasyOCR

Full-Stack Development: React.js, Next.js, Node.js, FastAPI, Streamlit, PostgreSQL, MySQL

Cloud & IoT: AWS, Azure, Docker, Git, Linux, Raspberry Pi, MQTT, Ubidots

Certifications

AWS Cloud Engineer: Proficient in AWS architecture, networking, security, and cloud infrastructure.

Cisco Networking Course - KGTIT: Skilled in Cisco networking fundamentals, routing protocols, and security.