Durairaj S

LinkedIn: linkedin.com/in/durai-raj-0a3611258
Github: github.com/DR-skcet

Email: idurairaj2002@gmail.com
Mobile: +91-9344021076

EDUCATION

- **Sri Krishna College of Engineering and Technology** Coimbatore, India
  *Bachelor of Technology - Computer Science and Business Systems; **CGPA: 8.51*** *Oct 2022 - May 2026*
  Areas of interest: *Artificial Intelligence, Machine Learning, Data Structures, Cloud Computing, Web Technologies, Business Analytics*

SKILLS SUMMARY

- **Languages**: Python, C, C++, SQL, Java
- **Concepts**: Object-Oriented Programming (OOPS), Data Structures, Cloud Services, SDLC
- **Web Technologies**: HTML, CSS, JavaScript , Django
- **AI&ML**: TensorFlow, Keras, Scikit-learn, OpenCV, CNN, NLP
- **Database Management**: MySQL, MongoDB(NoSQL), Firebase, SQL
- **Cloud & Tools**: AWS (EC2, S3, Lambda, DynamoDB, etc.), Oracle Cloud, Git
- **Soft Skills**: Leadership, Problem-Solving, Teamwork, Adaptability , Public Speaking

EXPERIENCE

- **Infosys Springboard** Remote
  AI Intern *Oct 2024 - Dec 2024*
  - **AI-Driven Health Monitoring System**: Developed an **AI-powered** solution for real-time **health data analysis**, optimizing **predictive analytics**, enhancing **decision support**, and improving **patient care insights**.

- **Centre for Entrepreneurship Development (CED), Anna University** Chennai
  IoT Intern *Jul 2024*
  - **IoT-Enabled Smart Maintenance**: Engineered an **IoT-based automation system** using **Arduino** and **MQTT** for real-time **infrastructure monitoring**, increasing **operational efficiency** and optimizing **resource utilization**.

- **Tamil Nadu Smart and Advanced Manufacturing Centre (TANSAM) - Siemens** Chennai
  Machine Learning Intern *Mar 2024 - Apr 2024*
  - **AI-Powered Quality Inspection**: Designed and deployed **machine learning model** using **TensorFlow** and **Keras** for **defect detection** in **PCB manufacturing**, improving **accuracy, scalability**, and **production efficiency**.

PROJECTS

- **Ovarian Cancer Detection (AI, Deep Learning, Healthcare)** [GitHub Link] ***Mar 2024 - Apr 2024***:
  - Developed a **CNN-based AI model** using **TensorFlow, Keras** to classify ovarian cancer subtypes.
  - Implemented **Explainable AI (SHAP, Grad-CAM)** for diagnostic transparency and **transfer learning** to boost model adaptability and enhanced generalization.
  - Optimized model performance with **hyperparameter tuning and data augmentation**, achieving high accuracy.

- **PCB Defect Detection (AI, Quality Control, Automation)** [GitHub Link] ***Mar 2024 - Apr 2024***:
  - Developed an AI-powered **deep learning** system for detecting burnt marks, rust, water damage, and pad defects in printed circuit boards (PCBs) with high accuracy.
  - Designed and implemented a scalable solution for **real-time multi-class defect classification** in a manufacturing.
  - Optimized **data augmentation and feature extraction**, boosting defect detection to high accuracy.

- **Smart Health Monitoring (AI, Real-Time Analytics)** [GitHub Link] ***Oct 2024 - Dec 2024***:
  - Built an **AI-driven real-time health monitoring system** using Django for **predictive analytics.**
  - Developed a Django-based API-driven health monitoring system for **real-time biometric data analysis.**
  - Implemented a user-friendly dashboard with **personalized health recommendations** for improved user well-being.

CERTIFICATIONS

- **AWS Certified Cloud Practitioner** [View Certificate] ***Jan 2025***:
  - Certified in **AWS architecture, security, networking,IAM, cost management** and **cloud deployment practices**.

- **Oracle OCI Foundations Associate** [View Certificate] ***Jan 2025***:
  - Certified in **Oracle Cloud services, networking, storage, compute, and security** for OCI cloud operations.

ACHIEVEMENTS

- **Finalist - IIT Madras Ideas to Impact** - Ranked in the top 20 out of 701 ideas, advancing to **NIRMAAN** pre-incubation for scalable innovation.
- **Finalist - Hackfest'24, NITTE Mangalore** - Competed among 240+ teams in a national hackathon.
- **NPTEL Topper-Introduction to IoT** - Recognized as a **topper** in the NPTEL-certified *"Introduction to IoT"* course.
- **Runner-up - Synergy 2024, PSG Coimbatore** - Secured 2nd place in a high-stakes business pitch event.
- **Pune Metro Rail Hackathon** - Engineered AI-driven escalator fall detection, enhancing passenger safety.
- **MyGov Campus Ambassador** - Selected by **Ministry of Electronics and IT** for digital initiatives.