DEVADARSHINI JAYAMURUGAN

ARTIFICIAL INTELLIGENCE & MACHINE LEARNING ENGINEER

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CAREER PROFILE

AI/ML Engineer with hands-on experience in Natural Language Processing, Computer Vision, Generative AI, and Cybersecurity. Skilled in developing and deploying scalable AI solutions, including speech-to-text, text-to-speech, and AR-powered training tools. Adept at collaborating across teams, applying cutting-edge models (LLMs, Whisper, HuggingFace, PyTorch) to real-world problems, and delivering measurable impact. Recognized for adaptability, problem-solving, and continuous learning, with strong academic and project-based achievements.

CORE COMPETENCIES

- Machine Learning & Deep Learning
- Natural Language Processing & LLMs
- Generative AI (Prompt Engineering, Co-pilot apps)
- Computer Vision & Image Segmentation
- Cybersecurity & Threat Analysis
- Cloud Computing (GCP, Azure, Nextcloud API)
- Data Analytics & Visualization (Tableau, Power BI, Excel)
- Project Management & Communication

PROFESSIONAL EXPERIENCE

AI/ML Intern, VizExperts (Remote) **Feb 2025 – July 2025**

- Spearheaded AI-driven automation for training workflows using Computer Vision & NLP.
- Developed Flask-based web application automating extraction of Learning Objectives (LOs), SOPs, and Storyboards from multimedia sources.
- Integrated Whisper ASR & Coqui TTS for multilingual narration, achieving 85%+ transcription accuracy in noisy environments.
- Built video segmentation pipeline for scene detection & AR storyboard generation, cutting manual effort by 70%.
- Optimized AI models for object detection & image labeling to enhance industrial training content.

AI & Data Analytics, AICTE (Virtual) **February 2025 - March 2025**

- Designed and deployed a Flask-based NLP chatbot handling 100+ intents with 90%+ accuracy.
- Reduced average response time by 40% through optimized intent classification and entity extraction.

SELECTED PROJECTS & VIRTUAL EXPERIENCES

- Tomato Disease Detection using VGG16 over PCA DeepNet (Conference Paper) — Developed a hybrid deep learning and classical ML model combining PCA-based feature extraction, VGG16, and GAN-augmented dataset for tomato leaf disease classification and detection. Integrated with Faster R-CNN, the pipeline achieved 99.60% classification precision, 98.04% average accuracy, and a 0.94 IOU score (SpringerLink) .
- Helmet & Number Plate Detection (YOLOv3): Built real-time CV system with high accuracy.
- Rainfall Prediction (XGBoost): Achieved strong precision/recall using weather features.
- Tomato Disease Detection (CNNs & PCA DeepNet): Benchmarked VGG16, InceptionV2 and ResNet variants for precision & recall.
- Virtual Simulations (Accenture, Mastercard, etc.): Hands-on in EDA, IAM, fraud detection, and GenAI financial chatbots.

EDUCATION

B.Tech Artificial Intelligence and Data Science **Oct 2021 - Nov 2025**

Saveetha School of Engineering, India **CGPA: 3.54 / 4.0**

- Research: “Comparative Study on Tomato Disease Detection using CNNs & PCA DeepNet”
- Key Courses: Deep Learning, NLP, Computer Vision, Cloud Computing, Generative AI, Machine Learning

CERTIFICATIONS

- EC-Council Certified Ethical Hacker (CEH) – Jul 2025
- EC-Council Certified Threat Intelligence Analyst (CTIA v2) – Jul 2025
- HackerRank – Go (Basic & Intermediate) – Jul 2025
- Deloitte Australia – Data Analytics Job Simulation (Forage) – Jun 2025
- Tata Group – GenAI Powered Data Analytics Job Simulation (Forage) – Jun 2025
- IBM – Career Management Essentials – May 2025
- IBM Z Day 2025 SE (AI & Data, Security) – Apr 2025
- IBM TechXchange Dev Day (Virtual Agents) – Jan 2025
- Accenture North America – Project Management Simulation (Forage) – Oct 2024
- CBRE – Project Management Simulation (Forage) – Oct 2024
- Google Cloud, Microsoft Azure, Cisco SkillsForAll, Great Learning Cyber Security (2023–24)

AWARDS

- Best Student Award – 2024
- Best Open Resource Learner Award – 2025

LANGUAGES

- English: C2 Proficiency (Native)
- Hindi: B1 Proficiency
- Tamil: Spoken
- Telugu: Spoken

REFERENCES

Available upon request.

NOTE:

Anticipated Graduation: November 2025
First graduating batch in B.Tech. Artificial Intelligence & Data Science, SIMATS, Chennai.