

Jenlin Anne Flora J

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EDUCATION

- Loyola-ICAM College of Engineering and Technology** Chennai, Tamilnadu
Bachelor of Engineering - Electronics and communication Engineering; CGPA: 9.50 June 2023 - June 2027
Courses: Embedded Systems, Microprocessors And Microcontrollers, Digital Signal Processing, Data Structures, VLSI Design, Artificial Intelligence And Machine Learning, Electronic Devices, Communication Systems
- Puspalatha Vidya Mandir (CBSE)** Tirunelveli, Tamilnadu
Higher Secondary(Class 12) – Percentage: 93% 2023
Secondary Education(Class 10) – Percentage: 94.6% 2021

SKILLS SUMMARY

- Languages:** [Python](#), C++, C, SQL, [JAVA](#), [HTML](#), [CSS](#)
- Other Skills:** [Data Structures And Algorithms](#), Generative AI, Prompt Engineering, IoT, [AIoT](#)
- Frameworks:** Scikit-learn, [TensorFlow](#), OpenCV, Arduino, ESP-IDF, [ROS](#)
- Tools:** [MATLAB](#), Simulink, Teachable Machine, LTspice
- Platforms:** Linux, Web, Windows, Arduino, AWS, ESP32, [Raspberry Pi](#), GCP
- Soft Skills:** Leadership, [Public Speaking](#), Time Management, Interpersonal Skills, Analytical thinking, Decision-making

PROJECTS

- Peripheral Awareness Training App – VR-based Vision Therapy:** (Work in progress) An interactive [VR app](#) to improve peripheral vision using eye-tracking and voice commands. Users focus centrally while detecting peripheral objects, with difficulty levels, performance tracking, and gaze alarms. Tech Stack: Unity (VR), OpenCV, Python, TensorFlow, Eye-tracking APIs, Voice Recognition (Jan '25).
- AI-Powered Smart Glasses for the Visually Impaired:** ([Computer Vision](#), [AI/ML](#), [Embedded Systems](#), [Assistive Technology](#)) Built with ESP32-CAM for real-time object detection ([YOLOv8](#)) and text recognition ([Tesseract-OCR](#)), with speech feedback ([Google TTS](#)) and voice commands. Enabled WebSocket-based image processing on PC, optimizing AI accuracy and latency. Tech Stack: ESP32-CAM, YOLOv8, Tesseract-OCR, Google TTS, Speech Recognition (Feb '25).
- Extensive Automatic River Cleaning Mechanism :** ([Embedded Systems](#), [IoT](#), [Robotics](#), [Automation](#), [Sustainability](#)) Built using [Arduino Uno](#) with GPS, sensors, and motor drivers for autonomous debris collection via a conveyor belt. Features Bluetooth control, solar power integration, and land-water mobility for efficient, eco-friendly operation. Tech Stack: Arduino Uno, GPS Module, Motor Drivers, Sensors, Bluetooth, Solar Power (Sep '24).
- Assistive Writing Pad and Pen for Inclusive Exams :** ([Assistive Technology](#), [Embedded Systems](#), [Accessibility](#), [AI/ML](#), [IoT](#)) Designed a handwriting-to-text device with Braille input, audio feedback, and offline support to assist in exams. Features [format keyboard](#), [OCR](#), and [TTS](#) for accessibility to blind and deaf students. Tech Stack: Arduino, Raspberry Pi, OCR, Text-to-Speech (TTS), Braille Display, Embedded C (Apr '24).
- Smart Dustbin for Automated Waste Management :** ([IoT](#), [Embedded Systems](#), [Automation](#), [Sustainability](#)) Built an automated, sensor-enabled dustbin with ultrasonic sensors for touchless use and real-time waste level monitoring, featuring IoT alerts and energy-efficient design. Tech Stack: Arduino, Ultrasonic Sensors, IoT, ESP8266, Servo Motors (Aug '23).

CERTIFICATIONS

- [AI/ML](#) Certification – ISRO
- [IoT](#) and [AIoT](#) Workshop – IIT Madras
- [Python](#) and [C](#) Programming – SkillRack
- Introduction to Arduino Uno – Infosys Springboard

ACHIEVEMENTS AND PARTICIPATION

- Top 50 Finalist – [SeedBrains](#) Program by Cambridge University
- Finalist – [Smart India Hackathon](#) (College Level)
- Top 10 Finalist – CTRL+ALT+HACK Hackathon
- Participant – [TANCAM Women's Hackathon](#)
- Active Member – STARC (Space Club)
- IEEE Student Member – Attended workshops and seminars

LANGUAGES

- English
- Tamil
- Hindi