

ANNAPOORNA A NAIR

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WORK EXPERIENCE

Intern | Resileo-Labs

June 2024 - July 2024

- Researched and implemented **Automatic Speech Recognition (ASR)** technologies, optimizing model accuracy and efficiency.
- Developed and tested **AI-driven models**, ensuring real-time response and performance scalability.
- Applied **user-centered design principles** to enhance system usability and accessibility.

Technical Head | Malayalam Literary Association

April 2024 - Present

- Managed and maintained the **MLA website**, ensuring seamless functionality and responsive design.
- Led a team of **tech enthusiasts**, driving accessibility-focused web solutions.
- Streamlined operations through **project management tools and methodologies**.

EDUCATION

- Vellore Institute of Technology, Vellore, Tamil Nadu**
Integrated M.Tech. Software Engineering (5 Years) | **September 2021 - Present**
CGPA: **8.93/10**
- SVG VHSS Kidanganoor, Pathanamthitta, Kerala**
Higher Secondary Education - Science | **March 2021**
CGPA: **10/10**

PROJECTS

IoT-Based Landslide and Flood Detection System

- Developed a **WSN-based real-time monitoring system** for flood and landslide detection.
- Integrated **Blynk and ThingSpeak** for remote data visualization and automated alerts.
- Provided **early warnings for rainfall, water levels, and landslides** to enhance disaster preparedness.

Cotton Plant Disease Prediction System

- Implemented **deep learning-based disease classification** using **VGG16**, replacing **ResNet50** for better accuracy.
- Enhanced **model precision** for improved detection of plant diseases in agricultural settings.

Review-Based Response Generation System (Ongoing)

- Developing an **AI-powered system** for **automated sentiment-based response generation**.
- Utilizing **RAG, OpenAI embeddings, ChromaDB, and LangChain** for intelligent review retrieval.
- Built with **Flask**, ensuring a **scalable and interactive** user experience.

TECHNICAL SKILLS

- Programming Languages:** Java, Python
- Web Development:** HTML, CSS, JavaScript, Bootstrap, React (currently enrolled)
- Machine Learning/AI:** VGG16, ResNet50, ASR, Image & Audio Classification
- IoT & Embedded Systems:** Wireless Sensor Networks (WSN), Blynk, ThingSpeak, ESP8266, NodeMCU.
- Software Development:** Object-Oriented Design, SDLC, StarUML

SOFT SKILLS

- Leadership & Team Management
- Critical Thinking & Problem-Solving
- Adaptability & Time Management
- Collaboration & Communication
- Project Management

ACHIEVEMENTS

- RNR & General Enquiry Manager | Riviera 2025:** Managed **250+ participant registrations and payment issues**, developed **barcode-based tracking**, and led a team of 10 coordinators and 20 volunteers.
- Events Coordinator | Gravitas 2023:** Organized and managed multiple large-scale events, collaborating with cross-functional teams to ensure smooth execution.
- State-Level Kerala School Sasthrolsavam (2020):** A Grade in **Math Fair event**, showcasing strong analytical and problem-solving skills.
- Bharath Scout and Guide:** Successfully passed the **Pre-Rashtrapati Test**.