Akilan Amithasagaran

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EDUCATION

University of Texas at Tyler

Tyler, TX

Master of Science in Computer Science (GPA: 3.83/4.00)

Aug 2024 - Present

Amrita Vishwa Vidyapeetham

Coimbatore, India

Bachelor of Technology in Electrical and Electronics (GPA: 7.37/10.00)

June 2018 - June 2022

EXPERIENCE

Information Technology Student Associate (Intern)

June 2025 - Present

The University of Texas System

Austin, TX

- Contributing to the development of **Private AI solutions** for the University of Texas at Tyler, focusing on secure LLM deployment for internal use.
- Designing and implementing a **Power BI dashboard** to visualize key institutional metrics, integrating Power Automate for dynamic data updates.

Graduate Research Assistant

Sept 2024 – Apr 2025

University of Texas at Tyler

Tyler, TX

- Deployed a state-machine workflow for a VR-based conversational LLM chatbot using Unity3D, enabling structured interactions in a virtual environment.
- Integrated an LLM-driven role-playing system into a Unity3D application with a 3D avatar, combining Speech-to-Text (OpenAI Whisper), Text-to-Speech (AWS Polly), and LipSync for conversational simulation.

AppyHigh Technology

Gurgaon, India

Software Development Engineer 2

Aug 2023 - Apr 2024

- Built Pixel Go, an AI-based photo/video enhancer using a YOLO model for efficient on-device object detection.
- Developed a reusable Flutter AI Avatar module, integrated into multiple production apps.

Software Development Engineer 1

Jul 2022 - Jul 2023

- Led development of Scanner Go (10M+ downloads), a Flutter app with live document edge detection.
- Maintained a 99.5% crash-free rate through comprehensive error handling and crash debugging via Firebase.

Flutter Development Intern

May 2021 - June 2022

- Built core features for Like Karo, a short video app with in-app recording and AR filters.
- Integrated real-time camera view and AR face effects using Tencent Effects SDK.

PROJECTS

MonkeyTalk — Hack_NCState 2025 | Swift, Python, LangChain, PyTorch, Ollama

• Built a private journaling app that transcribes audio logs into structured daily entries and uses a local LLM with RAG (Ollama + LangChain) to generate personalized habit improvement suggestions.

Watchdog — ShellHacks 2024 Winner | Python, OpenCV, Gemini, Flutter, Firebase

• Won the MLH - Best Use of Autho by Okta at ShellHacks 2024 (FIU) for developing a real-time suspicious activity detection system using OpenCV and LLM-based transcription with a Flutter web dashboard.

ChillBot — UT Tyler ACM Hackathon 2025 Winner | Python, Flutter, Firebase, Google Vision

• Won 1st Place at the 2025 ACM Hackathon conducted at UT Tyler for creating a smart fridge food tracker that identifies items with Google Vision, tracks expiration, and generates recipe suggestions via Firebase backend.

TECHNICAL SKILLS

Languages: Java, Python, Dart, Kotlin, Swift, C#, Javascript

Tools & Platforms: Flutter, Android, iOS, React, Git, LangChain, PyTorch, Firebase