

Abhinav Kamballoor Kottayil

App & Machine Learning Developer

Dubai, United Arab Emirates

Visa Status: UAE Golden Visa (Distinction Student Category)

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EDUCATION

• BSc Hons. in Computer Science (Artificial Intelligence)

Class of 2024

Heriot Watt University, Dubai, United Arab Emirates

- First Class Honours Graduate in BSc (Hons) Computer Science (Artificial Intelligence).
- Awarded Deputy Principal's Award for attaining 6 or more A's in an academic year in Year 2, Year 3 and Year 4.
- **Relevant Courses:** Data Structures & Algorithms, Artificial Intelligence & Intelligent Agents, Intelligent Robotics, Data Mining & Machine Learning, Software Engineering, 3D Graphics & Animation, Computer Games Programming, Data Visualization & Analytics

• Samsung Innovation Campus AI Course

Sep 2024 - Nov 2024

Samsung Gulf Electronics, United Arab Emirates

- Completed a 3-month AI course at the Samsung Innovation Campus, conducted by Samsung Gulf in partnership with the National Program for Coders. Gained hands-on experience in mathematics, machine learning, and deep learning through practical projects utilizing Python and industry-standard ML libraries.
- Received the **Top Student 2024** Award, recognizing outstanding performance among over 100 participants, and was featured in a **Khaleej Times** article highlighting the program's success.
- Developed an application for emotion detection using facial expressions, leveraging TensorFlow and OpenCV, as the capstone project for the course.

EXPERIENCE

• Software Engineering Intern @ Emirates

February 2025 - May 2025

- Developed utility tools for internal testing and automation.
- Refactored project code and updated dependencies for improved maintainability.
- Built an automated version update tool using Electron.js and Node.js.
- Designed and implemented a Solace Pub-Sub testing application to streamline publishing and reading of Solace event messages.
- Developed an AI-powered RAG chatbot using Next.js, Python, and Flask to assist with documentation-related queries.
- Contributed to the documentation of architecture components.
- Worked on Splunk dashboards to create analytics, user interactions and resolved bugs.

• Product Developer @ LYNKD

August 2024 - Present

- Led the end-to-end development of the Social Commerce Platform.
- Spearheaded the comprehensive Full Stack development of the mobile app using React Native and the development of web applications utilizing React.js.
- Built robust backend APIs with Node.js, Postgres, Hasura and AWS S3 for secure data handling and storage.
- Enhanced API security by implementing robust features such as JWT Token Authentication and Rate Limiting, ensuring secure and efficient access control.
- Successfully published the mobile application on the Google Play Store and Apple App Store, ensuring compliance with platform policies and UI/UX guidelines.

• Node.js Developer Intern @ Amrutam Ayurveda

June 2023 - September 2023

- Worked on Node.js backend & MongoDB Database for the mobile apps.
- Created APIs for different functionalities such of the mobile apps and migrated code using older version of AWS SDK to newer version.
- Developed appointment filtering functionality, doctor documents upload and verification and an AI Grammar checker using OpenAI API in the React Native app which improved usability.
- Collaborated with front-end developers on the integration of APIs with the mobile app.
- Played a vital role in fixing issues, configuring and publishing the React Native to iOS app store.

PROJECTS

• Emotion Detection using Facial Expressions

🐙 *GitHub Repository*

An interactive emotion detection app that uses facial expressions to accurately identify human emotions. 🚀 *Deployed Web App*

- This project was the Samsung Innovation Campus 2024 - Capstone Project of our group.
- We developed a high-accuracy CNN model for real-time emotion categorization from facial expressions, enabling users to upload images for instant emotion classification through a web application.
- **Technology Used:** Python, Flask, JavaScript, TensorFlow, OpenCV, Numpy
- **Deployment:** Deployed on Hugging Face Spaces using Docker


• AI Content Studio

Generate videos for social media with a single prompt.

- This project was built during a 24Hr Compass Hackathon in Abu Dhabi, UAE by a team of 5.
- Utilized the power of OpenAI's GPT4-o to create scripts, keywords to search for videos and OpenAI Whisper to generate subtitles and create the video.
- Supported languages were English, Arabic, Hindi, Chinese, Italian, French, Malayalam, Russian and Tamil
- App can be used to create videos of different orientations and video lengths which is tailored to different social media platforms.
- **Technology Used:** Python, Streamlit, MoviePy, OpenAI API, Pexels API

• StarCraft Game Outcome Prediction Using Machine Learning

Predicting winners of a 2 player Starcraft match using Machine Learning.

 *Project Repository*

- Created a robust pipeline to preprocess raw StarCraft replay data (.rep files) and build machine learning models for predicting match outcomes with high accuracy.
- Leveraged in-game data, including player characteristics, to train algorithms capable of recognizing patterns and strategies associated with winning teams.
- Developed an interactive GUI application enabling users to input various feature sets and receive real-time win percentage predictions for both players.
- **Technology Used:** Python, Sci-Kit Learn, Numpy, Pandas, TensorFlow, Tkinter

• SnapScrap - AR Scrapbooking Platform


A cross platform mobile AR Scrapbooking platform.

- Full stack mobile application with features such as home page feed, profile, nearby scrapbooks and shopping tab.
- Implemented AR feature using Native Android Modules in React Native.
- **Technology Used:** React Native, JavaScript, Firebase


• Full Stack Blog App

A simple full stack mobile blog app with authentication and database.

 *Mobile App Frontend*

 *Mobile App Backend*

- React Native blog app with CRUD operations and liked posts.
- Backend with Node.js and MongoDB database.
- **Technology Used:** React Native, Node.js, MongoDB

 More projects on GitHub: <https://github.com/Abhinav-kk>

TECHNICAL SKILLS AND INTERESTS

Programming Languages: Python, Java, JavaScript, C#

JavaScript Libraries/Frameworks: React.js, React Native

Machine Learning: Numpy, Pandas, scikit-learn, TensorFlow, OpenCV

Cloud/Databases: MongoDB, Firebase, Relational Database (MySQL), PostgreSQL, AWS S3, AWS EC2

Backend: Node.js, Hasura, GraphQL

Tools: VSCode, Git, GitHub, WordPress

Areas of Interest: Artificial Intelligence, Machine Learning, Web Design and Development, Mobile App Development

ACHIEVEMENTS

• Top Student 2024 Award

January 2025

Top Student 2024 award for outstanding performance in the Samsung Innovation Campus AI Course. This achievement was highlighted in a Khaleej Times article covering the program's graduation ceremony.

• First Place in 5ire Web 3 & Blockchain Hackathon @ Abu Dhabi University

May 2023

We secured first place in the 5ire Web3 and Blockchain Hackathon at Abu Dhabi University, organized in collaboration with 5ire and MetaDecrypt competing against 50 teams from nine universities across the UAE,

• Deputy Principal's Award

2022, 2023, 2024

The Deputy Principal's Award is given annually at Heriot-Watt University Dubai to students who attain six or more A's in courses during an academic year. I was honored to receive this award in my second, third, and fourth years of the undergraduate Computer Science program.