Anuja K U

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SUMMARY

M.Tech graduate with hands-on experience in Python, AI, and web development. Completed internships at VSSC, developed machine learning models, full-stack applications, and AI-powered systems. Skilled in Python, TensorFlow, Flask, and SQL. Eager to contribute as a Software Developer or Python Engineer.

SKILLS

- Languages: Python (Advanced), JavaScript, C, R, SQL
- Web & Mobile Development: HTML5, CSS3, FastAPI, Next.js, MongoDB, Docker, Django
- Core Concepts: Data Structures & Algorithms, Machine Learning, Artificial Intelligence, Data Science, Data Analysis, Validation & Model Performance
- Cloud & Big Data: Google Cloud (GCP), Hadoop
- Tools & Platforms: TensorFlow, PyTorch, OpenCV, Git, GitHub

EXPERIENCE

• AI Research Intern

Vikram Sarabhai Space Centre (VSSC), Thiruvananthapuram. — September 2024 - March 2025

Designed and implemented an AI-guided UAV docking system using DDPG and CNN-based pattern recognition. Built a reliable pipeline for pose estimation integrating OpenCV and TensorFlow. Validated performance across multiple test scenarios and documented technical specifications for drone control. Collaborated with cross-functional teams to address system integration issues and enhance scalability of the solution.

• Intern

Agratas Academy Pvt. Ltd. — May 2024 - June 2024

Completed an AI industrial training program on Natural Language Processing(NLP), Machine Learning(ML), and optimization best practices. Developed a semantic search use case using TF-IDF and cosine similarity for document ranking. Built a binary classification pipeline with gradient descent optimization in Scikit-learn. Improved performance and validation metrics through analytical tuning and model evaluation.

• Data Science Intern

CSRBOX — June 2024 - July 2024

Analyzed structured and unstructured datasets using Python and Pandas, delivering data-driven insights. Created scalable predictive models for analytics use cases such as demand forecasting and customer segmentation. Designed interactive dashboards in Tableau to support cross-functional collaboration in decision-making. Focused on reliability and scalability of deployed solutions by integrating cloud best practices.

EDUCATION

Cochin University of Science and Technology

M.Tech in Computer Science and Engineering | August 2023 - April 2025 | CGPA: 8.5/10

A P J Abdul Kalam Technological University

B.Tech in Computer Science and Engineering | August 2019 - May 2023 | CGPA: 7.35/10

PROJECTS

• At Your Service - A Web Application

Developed a full-stack web application leveraging Python and Django to connect users with nearby blue-collar workers. Implemented CRUD functionalities, user authentication & registration, and location-based service filtering. Used SQLite as the backend database and HTML/CSS with JavaScript for the frontend. Deployed using AWS with GitHub integration. Included form validation, user-friendly UI, and RESTful architecture.

• SmartDrone docking: AI-Guided Autonomous Docking System

Designed an AI-guided drone docking pipeline using DDPG and Convolutional Neural Network(CNN) for real-time analytics of position and angle. Implemented technical specifications for reliability and scalability in flight simulation. Addressed performance issues through reward function optimization and validation testing.

• Leaf Disease Detection using CNN

Built a cloud-ready analytical solution with TensorFlow CNN for plant disease detection. Deployed via FastAPI backend with React Native frontend, ensuring reliability and scalability.

• Traffic Sign Recognition System

CERTIFICATIONS

PHP Full Stack Development Avodha, Kochi — September 2024

R Programming Udemy — October 2023

Applied Accelerated Artificial Intelligence (NPTEL) — October 2024

Google Cloud Computing Foundations Program

GATE 2023 Qualified — Computer Science and Engineering