# Prasanna Aditya P

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Chennai, India
LinkedIn — GitHub — Portfolio

## Professional Summary

AI & ML Developer with strong programming and analytical abilities, specializing in data science, model optimization, and intelligent applications. Experienced in full-stack development and deploying ML models in real-time systems.

## Education

**B.Tech in CSE (AI & Robotics)**, VIT Chennai 2021–2025
CGPA: 8.09

## Experience

**ML Intern**, HCLTech Oct–Dec 2023

- Built and optimized DenseNet-based image captioning model using TensorFlow/Keras.
- Applied SCST, evaluated with BLEU-4, METEOR; reduced latency by 30%.

**Full-Stack Developer**, Oxlac Jun 2023–Jan 2025

- Built scalable web apps (Node.js, Express, PostgreSQL, Redis).
- Integrated REST APIs, async tasks (Celery), and Docker.

**Data Science Intern**, Oasis Infobyte Dec 2023–Jan 2024

- Built regression models using Scikit-learn; applied t-tests and chi-square for feature validation, improved pipeline via data cleaning and scaling.

## Key Projects

**Water Quality Monitoring (IoT + ML)** VIT Chennai

- Designed real-time water quality system using ESP8266 and sensors (pH, TDS, turbidity, temperature).
- Transmitted data over Wi-Fi to cloud; integrated dashboard for live monitoring.
- Built LSTM-based model for anomaly detection; optimized with early stopping and evaluated via RMSE/MAE.

**Image Captioning Platform** HCLTech

- Implemented DenseNet encoder + attention-based decoder for image-to-text generation.
- Used SCST (Self-Critical Sequence Training) with BLEU, METEOR, and CIDEr for evaluation.
- Deployed model using Docker, optimized TensorFlow runtime for faster inference.

**ROS Self-Driving Sim (YOLOv5)** VIT Chennai

- Developed autonomous driving simulation using ROS and Gazebo.
- Integrated YOLOv5 for object detection; configured ROS topics for sensor fusion.

## Core Skills

**Languages:** Python, SQL, R, JavaScript
**ML:** TensorFlow, Keras, Scikit-learn, Pandas, NumPy, XGBoost, LightGBM
**Concepts:** Hyperparameter Tuning, Regularization, PCA
**Evaluation:** F1, Confusion Matrix, BLEU, METEOR
**Time-Series:** ARIMA, LSTM
**Dev Tools:** Git, Docker, Celery, Jira
**Cloud/GEN AI:** Firebase, Hugging Face, OpenAI API, Azure (basic)

## Certifications

- Workato Enterprise Automation
- HackOverFlow Hackathon Finalist
- HCL – ML Internship Completion
- IITB – Spoken Tutorial: Python, ML
- Coursera: Applied ML with Python (in progress)

## Leadership & Activities

**Green Rotaractor**, Rotaract Club 2021–Present
**Go-Kart Designer**, National Racing Events Ongoing
**Chess Enthusiast**, Strategic Thinking Ongoing