

Prathith Shetty

Aspiring Software Engineer — AI/ML & Full-Stack Development

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SUMMARY

Computer Science (AI & ML) undergraduate who has shipped 6 production-grade applications — a YOLO-based waste-classification system trained on 13,000+ images, a Subject Allocation platform serving 50+ faculty across 6 departments, and a hybrid recommendation engine powering an AI-driven agri-marketplace — alongside a research internship fine-tuning LLMs/SLMs for low-resource Indian languages. Comfortable across Django, React, Flask, and PyTorch, with a track record of turning coursework and side projects into deployed, working systems. Seeking a Software Engineering or AI/ML internship.

EXPERIENCE

Rasaganga — Manager

Jan 2023 – Present

- Led a team of 10+ employees and managed inventory, staff performance, and daily operations, contributing to a 20% improvement in service efficiency.

PES University Research Foundation — AI Research Intern

Jun 2026 – Aug 2026

- Conducted comparative research on Large Language Models (LLMs) and Small Language Models (SLMs) across 3 low-resource Indian languages — Kannada, Tamil, and Hindi.
- Evaluated tokenization efficiency and applied parameter-efficient fine-tuning (PEFT) techniques, including LoRA, to adapt language models for low-resource settings.
- Benchmarked models including BLOOM and Falcon-40B across NLI, sentiment analysis, and hate speech detection tasks to analyze performance and efficiency trade-offs.
- Reviewed and synthesized research literature, methodologies, and evaluation strategies to guide model selection and comparative analysis.

Jobzshalla — Data Analyst

Jun 2025 – Jan 2026

- Analyzed 20K+ business and user records using SQL and Excel to identify trends, improve reporting, and support data-driven decision-making.
- Delivered 5+ dashboards and KPI reports that improved performance tracking and communicated actionable insights to stakeholders.

PROJECTS

AI-Based Garbage Detection Using YOLO — Real-Time Waste Classification System

Python, YOLO26n (Ultralytics), PyTorch, OpenCV, Streamlit, Intel Arc GPU (XPU)

- Trained a custom YOLO26n model on 13K+ annotated images (42 waste categories) with Intel Arc GPU (XPU) acceleration, and shipped a Streamlit app that visualizes live bounding boxes, class labels, and confidence scores on any uploaded photo.

Agri Shop for Farmers — AI-Powered Agri-Marketplace

Django, scikit-learn, Bootstrap 5, SQLite

- Architected a full-stack agri-marketplace connecting farmers directly to buyers, with role-based dashboards, category/price search filters, and an atomic booking lifecycle (pending → accepted → completed) across 4 modular Django apps and 8 relational models.
- Engineered a hybrid recommendation engine — TF-IDF/cosine-similarity content-based filtering plus booking-driven collaborative filtering — for personalized product suggestions, and an automated Wikimedia API pipeline that sourced and categorized images across a 49-product catalog.

Online Catering Platform

Django, Bootstrap, SQLite, Pillow

- Created a catering reservation and ordering platform for a 10+-employee restaurant business, bringing catering bookings online with permission-based access control, a cart-to-checkout workflow, and an admin dashboard for managing menus, packages, and order status.
- Designed a relational schema across 9 models spanning accounts, catalog, and order management, with server-side validation, price-snapshotting on completed orders, and a responsive, mobile-friendly UI across 20+ page templates.

Subject Allocation System

Django, DRF, React.js, SQLite, JWT

- Built a Subject Allocation System supporting 50+ faculty across 6 departments, with JWT authentication, RBAC, REST APIs, React dashboards, and a layered Django backend.
- Developed a constraint-based faculty allocation engine using preference scoring, workload balancing, availability, and conflict detection.

SentinelAI — AI Model Security Assessment Tool

Python, Hugging Face Hub API, Security Scanning

- Built and validated an automated security assessment tool against 15+ Hugging Face models, evaluating vulnerabilities, CVEs, prompt-injection weaknesses, and bias risks.
- Designed a unified risk-scoring framework to aggregate security findings and support comprehensive, interpretable model evaluation.

AI Notes Summarizer

React.js, Flask, MySQL, Gemini API

- Developed an AI-powered study application that extracts text from PDFs up to 100+ pages and generates structured notes using the Gemini API.
- Implemented JWT authentication, REST APIs, PDF processing, MySQL persistence, and a responsive React dashboard for an end-to-end document summarization workflow.

EDUCATION

PES University — B.Tech in Artificial Intelligence and Machine Learning

Expected Jan 2028

Bengaluru, Karnataka | Activities: Rotaract, PAWS, Maaya; Runner-Up, Deltatime Hackathon; Participant, Paraxis and CyberClash Hackathons

TECHNICAL SKILLS

Languages: Python, C++, JavaScript, SQL, HTML, CSS

Frameworks & Technologies: Django, Django REST Framework, React.js, Flask, REST APIs, JWT, Bootstrap

Databases: MySQL, SQLite, MongoDB

AI/ML: Large Language Models, Small Language Models, NLP, PEFT, LoRA, Hugging Face Models, Recommendation Systems, scikit-learn, Model Evaluation

Tools: Git, GitHub, VS Code, Jupyter Notebook, Postman, Unity Game Engine