Sreerag O S

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SUMMARY

Full-Stack Developer & Python Programmer skilled in Django REST Framework, React, PostgreSQL, and MongoDB. Experienced in building secure, role-based web applications with data synchronization and cloud-style file management. Proven problem-solver with production deployments and academic projects in ML, NLP, and offline-first systems.

EXPERIENCE

Internship

Zyxware Technologies   **June 2024 – July 2024, Trivandrum**
- Contributed to a **Python-based data scraping and cleaning project** for higher-education market research.
- Collected and categorized **CMS usage data from 300+ US university websites**, improving data accessibility for strategic insights.
- Reduced manual classification time by approximately **15 hours per week** for the analytics team through automation.

PROJECTS

CrashGuard
- Designed an accident severity prediction system combining **NLP for textual incident reports** and **ML-based image analysis** for damage detection.
- Trained the image classification model on **~2,500 labeled accident images**, achieving **92% accuracy** in severity classification.
- Integrated the ML model into **Google Gemini API**, enabling **real-time predictions** with an average **response time under 2 seconds**.
- Built a user-friendly interface to input textual and image data, tested on **20+ simulated accident scenarios**, providing both severity scores and actionable recovery guidance.

Offline Data Collection for NGOs
- Developed an **offline-capable web application** enabling NGOs to gather structured data in low-connectivity areas, supporting **5+ field survey types**.
- Enabled creation of **custom forms with user-defined fields**, storing **100+ responses locally** before automated upload when internet access was restored.
- Implemented secure, encrypted data synchronization, ensuring **zero data loss** during offline-to-online transitions in testing.

Full-Stack Portfolio & Content Delivery Platform
- Developed a **full-stack portfolio and content delivery platform** using Django REST Framework and React, scheduled to serve **200+ works** at launch.
- Implemented **categorized posts** with public viewing, enabling visitors to quickly navigate across **5+ distinct content categories**.
- Built a **secure authentication system** with role-based redirects, supporting **separate admin and end-user access flows**.
- Enabled admins to **create/edit content** and upload files, reducing manual content management time by **over 50%**.
- Integrated a **cloud-style download feature** allowing public users to access and download **100+ admin-uploaded files** directly.

EDUCATION

B-Tech in Computer Science
Cochin University of Science and Technology (CUSAT) · Cochin · 2025

12th Standard
Placid Vidya Vihar, Changanassery · 2021
- Percentage: 88%.

10th Standard
K.E. Carmel Central School, Muhamma · 2019
- Percentage: 92.4%.

SKILLS

Django full stack development, Pandas, Excel, React, Postgresql, MongoDB

Critical thinking, Independent problem-solving(worked in logistics for one month)