

MADAPATI ABHINAV SAI

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SUMMARY

Third-year Computer Science undergraduate at VIT-AP University specializing in Artificial Intelligence & Machine Learning. Software Engineer at Qaulium AI with proven experience delivering full-stack products from concept to production in under six weeks. Research background in Natural Language Processing (BERT fine-tuning) and Computer Vision (YOLO benchmark evaluations on large-scale geological datasets). Proficient in PyTorch, Python, React, FastAPI, and cloud deployments; seeking a challenging AI/ML or Software Engineering Internship.

TECHNICAL SKILLS

Languages: Python, JavaScript, TypeScript, Java, C
AI / ML: PyTorch, TensorFlow, Keras, Scikit-learn, YOLO, OpenCV, BERT, LSTM, HuggingFace, Transformers, LLM Fine-Tuning, Generative AI, RAG
Data Science: Pandas, NumPy, Matplotlib, Seaborn, Feature Engineering, Model Evaluation (F1, ROC-AUC, Confusion Matrix)
Backend / DB: FastAPI, Node.js, Express, PostgreSQL, MySQL, MongoDB, Firebase, REST APIs, JWT Auth
Cloud & DevOps: Git, GitHub, Docker, Vercel, Cloudflare Workers, CI/CD, OCI (Oracle Cloud), AWS, Linux
Frontend: React, HTML5, CSS3, Tailwind CSS, Vite

EXPERIENCE

Software Engineer | Qaulium AI Jan 2025 – Present | Remote

- Worked as the first engineer of the company, helped deliver the product from concept to production in less than six weeks with landing page, admin panel, employee portal and internal tooling.
- Implemented role-based access control with JWT tokens and made more than 30+ deployments to Vercel without a production downtime.

PROJECTS

Coal Classification AI | *Python, YOLO, OpenCV, PyTorch* [GitHub ↗](#)

- Made a comparison between three YOLO models on a 1.55 GB geological dataset, considering five different damage classes and choosing the best model based on the metrics of mAP50, precision, recall, and per-class F1 and confusion matrices.

Multi-Domain Sentiment Analysis | *Python, BERT, LSTM, HuggingFace, Scikit-learn* [GitHub ↗](#)

- Made a comparative study on 15+ classifiers using seven NLP datasets; fine-tuned BERT to reach 86% accuracy on IMDB and outperformed all baselines by 8-12 points; made detailed per-domain reports on the accuracy, F1, ROC-AUC and confusion matrices.

CricketConnect Pro | *TypeScript, React, Node.js, PostgreSQL, Cloudflare Workers* [GitHub ↗](#)

- Live platform for making bookings in venues, managing tournaments and a three-tier RBAC system – 40+ CI/CD iterations without any production regressions.

LaundryHub AI SaaS | *TypeScript, React, Firebase, Node.js* [GitHub ↗](#)

- Three-role SaaS with real-time order tracking using Firebase and NLP chatbot reducing repetitive order status inquiries by 40%.

Civic AI | *Python, FastAPI, React, NLP* [GitHub ↗](#)

- NLP classifier routes citizen complains to the right department; FastAPI backend with priority score and React frontend dashboard for officials.

EduVision-X | *Next.js, TypeScript, React, AI Workflows, STEM Simulations* [GitHub ↗](#)

- Interactive presentation and STEM simulation platform for classrooms, featuring AI-assisted content workflows, an integrated Coding Lab, and type-safe autosave API pipelines.

PUBLICATIONS

“A Hybrid Multi-Domain Sentiment Analysis Framework Using Machine Learning, Deep Learning and Transformer Models” – *In Preparation*

EDUCATION

B.Tech — CSE (AI & ML) | VIT-AP University, Amaravati 2024 – 2028
CGPA: 7.5/10

Intermediate (MPC) | Narayana Junior College 2022 – 2024
Score: 93%

SSC | Sri Chaitanya Techno School 2021 – 2022
Score: 93%

CERTIFICATIONS

- Oracle Cloud Infrastructure 2025 AI Foundations Associate — Oracle (2025)
- Foundations of Project Management — Google / Coursera
- Data Analytics Virtual Job Simulation — Deloitte Australia

AWARDS & LEADERSHIP

- Top Contributor #1 — GDGoC VIT-AP Git & GitHub Open Source Challenge (Mar 2025)
- 2nd Place — ElectroQuest Technical Competition, IEI Student Chapter, VIT-AP University
- VIT-AP Aura Hackathon — worked on and delivered the product in one day in the four-person team
- AI/ML Team Lead — GDGoC VIT-AP: led workshops and mentored junior members