

Dileep Reddy Battu

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Summary

Software Engineer with **4+ years** of experience building backend systems, full-stack web applications, and data-driven software solutions.

Skilled in **Python, JavaScript/TypeScript, FastAPI, Node.js, React/Next.js, PostgreSQL, and cloud platforms**.

Built production systems that improved automation, reporting, and operational efficiency across healthcare and business environments.

Experienced in **API development, CI/CD, testing, debugging, cloud deployment, and database engineering**.

Also developed **AI-powered applications**, including RAG systems, MLOps pipelines, and threat detection platforms.

Education

Northern Arizona University

Jan 2023 – May 2024

M.S. in Computer Science, GPA: 3.5

Flagstaff, AZ

Work Experience

Vesta Teleradiology

May 2025 – Present

Software Engineer

Lake Mary, FL

- Deployed **GCP-based data services** with **Python, BigQuery, Cloud Run, and Cloud Scheduler** to ingest **20k+ imaging records** daily for automated analytics and reporting, eliminating manual workflows and saving **300+ hours monthly**.
- Co-built **HIPAA-compliant** reporting and analytics pipelines integrating **PACS** and **Google Workspace APIs**, improving data retrieval latency by **70%** and delivering real-time operational visibility across radiology teams.

Vesta Teleradiology

Aug 2024 – May 2025

Software Engineering Intern

Lake Mary, FL

- Developed backend workflow services with **Python, Flask, PostgreSQL, and REST APIs** for radiology operations, supporting automated reporting and process execution across **300+ providers** and **1200+ facilities**.
- Enhanced **RadMapping+** and **CredMapping+** by implementing automation, validation, and monitoring features that reduced workflow overhead by **37%** and improved platform reliability for **90+ active users**.

Northern Arizona University

Aug 2023 – May 2024

Teaching Assistant, Computer Science

Flagstaff, AZ

- Assisted students with **programming, software engineering concepts**, and lab sessions.
- Supported projects and strengthened student **problem-solving** through hands-on **technical guidance**.

Calibridge Info Systems Pvt. Ltd.

Jan 2020 – Dec 2022

Software Engineer

Hyderabad, India

- Engineered **SmartLeads**, A **CRM platform** with **Next.js, React, TypeScript, Node.js, Express, and PostgreSQL**, streamlining lead management, customer interactions, and sales pipeline tracking through real-time dashboards and API-driven workflows.
- Developed **SLKW**, A modern e-commerce application for traditional apparel using **Next.js, Express.js, PostgreSQL, Tailwind CSS, GitHub, and Vercel**, implementing authentication, cart, filtering, and order management features for a seamless user experience.
- Built and integrated scalable **REST APIs** for customer outreach, product operations, and transaction workflows, improving platform functionality, team efficiency, and customer engagement by **30%**.

Projects

CredMapping+

- Built a credentialing and KPI platform using **JavaScript, Flask, PostgreSQL, Supabase, and n8n** to automate provider workflows and support large-scale healthcare operations.

- Reduced manual effort by **40%** through workflow automation, while supporting **300+ healthcare providers** and **1200+ facilities** with scalable backend systems and operational dashboards.

RadMapping+

- Developed a radiology management and KPI platform using **JavaScript, Flask, Jinja, PostgreSQL, Supabase, and Python** to streamline operational workflows for healthcare teams.
- Improved workflow efficiency by **37%** and reduced data retrieval latency by **70%** through automation, real-time PACS synchronization, and scalable backend services supporting **300+ doctors** and facilities.

SmartLeads

- Built a CRM platform using **Next.js, React, TypeScript, TanStack Query, Tailwind CSS, DaisyUI, Node.js, Express, and PostgreSQL** to streamline lead management and customer outreach.
- Implemented lead tracking, activity logging, email composition, and interactive pipeline dashboards with **Highcharts**, improving visibility, team collaboration, and sales workflow efficiency.

RAG-Assistant: Document Q&A System

- Built an end-to-end **Retrieval-Augmented Generation backend** that enables document upload and context-grounded question answering using **FastAPI, LangChain, LlamaIndex, and Supabase pgvector**.
- Implemented ingestion pipelines with parsing, chunking, embedding generation, hybrid retrieval, and memory-aware conversational APIs to improve answer relevance and reduce hallucinations.

End-to-End MLOps Pipeline for Clinical Classification

- Designed and implemented a production-style ML pipeline covering ingestion, feature engineering, training, evaluation, deployment, monitoring, and retraining using **Python, Scikit-learn, MLflow, FastAPI, and Airflow**.
- Deployed inference APIs with A/B routing, experiment tracking, drift monitoring, and automated retraining triggers, achieving strong model performance with repeatable validation and release readiness.

AI-Powered Threat Detection System

- Built an end-to-end cybersecurity analytics platform using **FastAPI, Node.js, Next.js, PostgreSQL/Supabase, and Docker** to ingest web traffic, detect anomalies, and generate real-time threat intelligence dashboards.
- Engineered anomaly detection pipelines with **Isolation Forest, One-Class SVM, and a PyTorch autoencoder**, enabling threat scoring, incident alerts, analyst triage workflows, and model comparison dashboards.

Skills

Languages: Python, JavaScript, TypeScript, Java, C++, C, SQL

Frontend: React.js, Next.js, HTML, CSS, Tailwind CSS, DaisyUI, Highcharts, Lucide React

Backend: Node.js, Express.js, Flask, FastAPI, REST APIs, Apache Kafka

AI/ML: LangChain, LlamaIndex, SentenceTransformers, Scikit-learn, PyTorch, MLflow, Airflow, RAG, Prompt Engineering, OpenAI API, Claude Code, Gemini, LLM Evaluation, Anomaly Detection, CodeX

Databases: PostgreSQL, MySQL, pgvector, BigQuery, Snowflake, MongoDB, Supabase

Cloud & DevOps: GCP, AWS, Docker, CI/CD, GitHub Actions, Linux, Vercel, Render, Heroku, Netlify, DigitalOcean

Testing & QA: Unit Testing, Integration Testing, API Testing, Debugging, Validation, Monitoring

Tools & Concepts: Git, GitHub, Supabase, n8n, OOP, Data Structures, System Design, SDLC, Workflow Automation, Cybersecurity Analytics, Agile

Cloud & AI Familiarity: GKE, Vertex AI