

Manikanta Illuri

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EXPERIENCE

CloneTab Inc. (Remote)

June 2025 – Present

Software Engineering Intern

- Built retrieval-based AI assistant over metrics + logs by integrating telemetry APIs (Prometheus/OpenTelemetry) with custom retrieval/ranking pipelines, enabling natural-language on-call and debugging workflows.
- Improved reliability and reduced latency by enforcing context budgeting, intelligent chunking, and inference controls (timeouts/retries), stabilizing responses on highly variable log volumes.
- Led full Oracle XE → PostgreSQL migration: translated schemas, optimized queries/indexes, and validated correctness/performance with before/after benchmarking.

Cloudbrink Inc., Sunnyvale, CA

June 2024 – September 2024

Software Engineering Intern

- Developed BigQuery log analytics pipeline supporting natural-language queries (NLQ), replacing manual log review with structured retrieval + summarization.
- Increased throughput and cut query cost/latency by building Python preprocessing layer (normalization, filtering, schema extraction) for high-volume JSON alert data.
- Reduced SRE investigation time ~50% through automated concise incident summaries (root-cause hints, top offenders, time windows).

Innominds Inc. (HCCC CARS Project), Livermore, CA

June 2023 – September 2023

Data Engineering Intern

- Designed and implemented enterprise document ingestion + search pipeline: automated metadata extraction and indexing into Elasticsearch for fast keyword + filtered retrieval.
- Added role-based access control (RBAC) to scope search results by user permission, strengthening security while preserving discoverability.

PROJECTS

ConstructionAgent – Emergent Coordination with LLM-Based Agents

[GitHub](#)

- Won 1st place at AI Multi-Agent Competition, Agentic AI Summit (UC Berkeley, 2025).
- Architected multi-agent system where LLM agents develop emergent language and coordinate complex construction tasks through natural-language interaction with no pre-defined protocols.

ImageGen – Full-Stack ML Image Generation & Captioning

[GitHub](#)

- Built end-to-end web application (React frontend + Flask backend) integrating PyTorch models for image captioning, editing, and text-to-image generation.
- Implemented user upload/prompt workflows with efficient model serving and responsive UI.

EDUCATION

University of California, Santa Cruz

June 2025

B.S. Computer Science, Minor in Technology & Information Management

- Relevant Coursework: Data Structures & Algorithms, Systems Design, Computer Networking, Databases, C Programming

TECHNICAL SKILLS

- **Languages:** Python, Go, JavaScript, C/C++, Java, HTML/CSS
- **Backend & APIs:** FastAPI, Flask, Node.js, Next.js, REST APIs, gRPC, Redis, Kafka/PubSub
- **Databases & Search:** PostgreSQL, MySQL, MongoDB, Elasticsearch, Qdrant (Vector DB)
- **Cloud & DevOps:** GCP, AWS, Docker, Kubernetes, Terraform, Linux, GitLab CI/CD, Jenkins
- **AI/ML & Observability:** PyTorch, RAG, Embeddings, Pandas, NumPy, OpenTelemetry, Prometheus, Grafana

CERTIFICATIONS

NVIDIA Certified Associate: Generative AI & LLMs (2025) • Google Certified Associate Cloud Engineer (2025) • Databricks Generative AI Fundamentals (2025) • Google – LLMs with Cloud and Python (2025)