BASAVRAJ CHINAGUNDI

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EDUCATION

Master of Science, Computer Science   Aug 2025 - July 2027
Arizona State University, Tempe, AZ   GPA: 4.11/4
Relevant Coursework: Data Structures, Algorithms, Natural Language Processing, Semantic Web Mining

Bachelor of Engineering, Electronics and Communication Engineering   Aug 2019 - July 2023
Thapar Institute of Engineering and Technology, Patiala, India

TECHNICAL SKILLS

Languages: Python, SQL, JavaScript, TypeScript, Java, C++, Bash
AI/ML: PyTorch, LangChain, LangGraph, HuggingFace, OpenAI API, Gemini API
Frameworks: FastAPI, Flask, Streamlit, React, Spring Boot
Data/Cloud: Snowflake, Databricks, PostgreSQL, MySQL, GCP, Azure
Tools: Git, Docker, Postman

EXPERIENCE

AI Software Engineer: Deloitte USI   Oct 2023 – July 2025

- Built a **RAG-based chatbot** using **Python, Streamlit, and GPT-4** over consolidated banking documents, implementing **token-aware chunking** and **asynchronous API calls** to efficiently process large document collections.
- Developed an **XML-to-SQL code generation pipeline** leveraging **GPT-4.1** to parse **Informatica ETL mappings** and automatically generate **executable SQL scripts** for large-scale **legacy system migration**.
- Created an automated **data quality rule generator** using **Great Expectations** and **Gemini 2.0**, streamlining rule syntax creation for **data engineering pipelines**.
- Wrote scalable **Python ETL pipelines** for **multi-cloud data extraction** (**GCP, Azure**) and optimized loading into **Snowflake** and **Databricks**.
- Integrated **four Generative AI tools** into a unified **agentic workflow** using **LangGraph**, enabling **automatic task routing** and orchestration across AI-driven processes.

Software Development Engineer Intern: Samsung SDS   Mar 2023 – June 2023

- Programmed a **full-stack inventory microservice**(**Java**, **Spring Boot**, **React**) that automated tracking for **1,000+ SKUs**, cutting errors by **90%** and saving **10 hours** of manual entry per week.
- Leveraged inventory data from the automation tool to build a **forecasting model** (**ARIMA**, **Prophet**), improving seasonal demand prediction accuracy by **30%**.

PROJECTS

STaR: Self-Taught Reasoner *(GitHub)* *(Python, PyTorch, Hugging Face, LLM Fine-Tuning)*

- Implemented the **STaR (Self-Taught Reasoner)** framework from scratch, fine-tuning **Llama 3.2-3B** on **GSM8k** using **SFT** and **iterative self-improvement**; achieved **73.8%** zero-shot and **72%** STaR accuracy.
- Analyzed **training data quality degradation** across iterations, identifying **weak validation** and **noisy synthetic data** as causes of performance drop to **64.9%**.

Slapp-AI *(GitHub)* *(Python, LLaVA-Mistral-7B, Supermemory, Streamlit)*

- Engineered a clothing recommendation app using **LLaVA-v1.6-Mistral-7B** to generate descriptions from images; indexed **5,800+ items** in Supermemory for retrieval.
- Created per-user graphs that update from swipe actions to personalize recommendations; **30+ GitHub stars**, **400+ X bookmarks**.

ShadowSearch *(GitHub)* *(JavaScript, Cloudflare Workers, Llama 3.1)*

- Coded a **Chrome extension** powered by **Cloudflare Workers** and **Llama 3.1** for real-time contextual page analysis and **semantic search**.
- Won **hackathon** solo against **600+ participants** with a **session-aware Q&A system** maintaining per-tab conversation context.