# **Bhanuprasadh Santra**

# **EDUCATION**

Bachelor of Technology - Computer Science (CGPA: 7.69),

Nov 2021 – Apr 2025 | Andhra Pradesh, India

Kakinada Institute of Engineering and Technology

• Relevent Courses: Networking, Operating Systems, Data Structures and Algorithms, Databases, Statistics.

# **SKILLS**

Languages — Python, Go, SQL, Bash, JavaScript

AI/ML Frameworks — TensorFlow, PyTorch, Keras, Langchain, Hugging Face Transformers

Libraries — Pandas, Numpy, Scikit-learn, Flask, Django, Spark, Hadoop

DevOps & MLOps — Docker, Kubernetes, Jenkins, Terraform, ArgoCD, GitHub Actions, GitOps, Ansible

**Cloud Platforms** — AWS, GCP (Google Cloud), Azure

**Databases** — MySQL, MongoDB, PostgreSQL, Elasticsearch

Version Control & Tools — Git/GitHub, GitLab, Bucket, Linux, Vagrant, Wrap, Pieces

#### **EXPERIENCE**

AICTE, Cloud GenAI Intern - Remote

Jul 2024 – Presen

- Built and deployed **generative AI solutions** using **Google Cloud tools** (Vertex AI, Gemini APIs) to optimize workflows for development, data analysis, and security engineering.
- Designed AI-powered applications for code generation, data retrieval, and multimodal processing, improving productivity by 30%.
- Integrated Responsible AI principles (fairness, bias mitigation, privacy) into AI models, ensuring ethical deployment.
- Streamlined operations by implementing AI models for image generation, embeddings-based search, and multimodal data analysis.

### **PROJECTS**

# Intelligent Customer Support Chatbot, (LLM, RAG, GenAI)

Mar 2025

- Built a GPT-based chatbot with Retrieval-Augmented Generation (RAG) to retrieve domain-specific knowledge in real-time.
- Developed a query pipeline using Flask, Elasticsearch, and Pandas for seamless data retrieval and processing.
- Deployed on AWS using Docker, Kubernetes, Terraform, and Jenkins CI/CD for automated scaling and updates.
- Impact: Reduced customer query resolution time by 40% and improved accuracy by 25%.

#### **Predictive Maintenance System, (ML, Data Science)**

Feb 2025

- Designed a predictive maintenance pipeline using TensorFlow and Scikit-learn to analyze sensor data and predict
  equipment failures.
- Built ETL workflows with Pandas and SQL, and visualized insights using Dash.
- Deployed on Azure AKS with Docker, Ansible, and Jenkins CI/CD pipelines for real-time monitoring.
- Impact: Reduced downtime by 20% and increased equipment lifespan by 15%.

## **Real-Time Sentiment Analysis for Social Media, (NLP, Deep Learning)**

Sep 2024

- Built a real-time sentiment analysis model using PyTorch and Hugging Face Transformers to analyze social media data.
- Integrated with Kafka for real-time data streaming and Elasticsearch for efficient data storage and retrieval.
- Deployed on GCP using Kubernetes and Docker for scalable and efficient processing.
- Impact: Achieved 90% accuracy in sentiment classification, enabling brands to monitor customer feedback in real-time.

# **CERTIFICATIONS**

Google, Developed GenAl Apps with Gemini and Streamlit ♂

Aug 2024

Google, Prompt Design in Vertex AI Skill Badge ☑

Aug 2024

Google, Gemini Multimodality and Multimodal RAG Skill Badge ♂

Aug 2024

# **CODING PROFILE & ACHIEVEMENTS**

- Solved 200+ Python problems, 50+ GoLang problems, and 60+ SQL problems on Codechef.
- Earned a Merit Certification for completing the 50-week Foundations of Modern Machine Learning (FMML) program at IIIT Hyderabad, gaining expertise in ML fundamentals, algorithms, and practical applications.