

CHANDAN KUMAR

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EDUCATION

National Institute Of Technology Karnataka

Bachelor's Degree in Electrical & Electronics Engineering

May 2023

8.23/10.00

TECHNICAL SKILLS

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

Developer Tools: Git, Docker, AWS, Azure, GCP, FAISS, Kubernetes, OpenShift, Airflow, Kafka, Redis, Hadoop, Apache Spark

Technologies/Frameworks: Pytorch, Tensorflow, Keras, NLTK, spaCy, OpenCV, Sklearn, Pandas, Matplotlib, RAG, LangGraph, LangChain, MLflow, KubeFlow, Qdrant, ChromaDB, Hugging Face, TorchServe, Tensorflow Serving, MLOps, GPT, GAN

Coursework: Machine Learning, Deep Learning, Computer Vision, Probability & Statistics, Generative AI, GPU Optimization

EXPERIENCE

Wells Fargo | Software Engineer, Machine Learning

July 2023 - Ongoing

- Devised a questionnaire response automation tool, reducing survey completion time from months to minutes by automating the extraction and answering questionnaire data utilizing retrieval-augmented generation(RAG) and LLMs
- Implemented an intelligent document processing workflow using **Azure Document Intelligence**, vector search, and LangChain, improving overall operational efficiency by **83%** and cutting down the manual intervention by **75%**.
- Designed and deployed a survey response containerized application using a **Streamlit** frontend, **FastAPI** backend, and **Postgres** database, on **Azure Container Instance**, optimizing the development turnaround time by **70%**
- Applied **prompt engineering** by experimenting with various prompt structures to refine **OCR** parsed data, achieving a **30%** improvement in data consistency and a **42%** increase in accurate survey responses using LLMs.

OnePlus R&D (OPlus Group) | Innovation Intern

May 2022 – July 2022

- Engineered an AI-powered web-based image annotation platform using cutting-edge object detection frameworks like **YOLOv7**, **Detectron2**, and **Azure AI Vision API** that reduced manual labeling effort by **60%**
- Integrated **Mask R-CNN** for automated image segmentation, improving mask prediction accuracy by **12%**
- Saved the company approximately **\$500K** on Amazon Mechanical Turk licensing for image annotation
- Implemented an active learning feedback loop to periodically retrain models with user-corrected annotations, boosting mean Average Precision(mAP) from **35%** to **38%** over two months

Google Summer Of Code | Student Developer - JdeRobot

May 2021 – August 2021

- Engineered a web platform enabling users to write, debug, and simulate, incorporating computer vision models such as YOLO, Detectron2 solve tasks in three simulation playgrounds: Pick and place objects, Line following, and drone landing.
- Developed an AI-driven evaluation framework leveraging **Vision Transformers (ViTs)** and **Explainable AI (XAI)** to analyze model behavior, providing real-time performance insights and increasing user engagement by **30%**

PROJECTS

WiDS Datathon 2024 | Sklearn, Tensorflow, NLTK, AutoML, Optuna, Numpy, Matplotlib, Pandas

June 2024

- Implemented an ensemble of 15 models, including CatBoost, XGBoost, and Ridge, to predict Metastatic Cancer Diagnosis Period, achieving a score of **80.507** and **Global Rank 2** among 500+ teams on the Kaggle leaderboard
- Utilized Feature Importance table, SHAP values, and ANOVA to shortlist 11 key features out of 150+ for the models. Used Sequential Feature Selector to identify best-performing features for tree-based models.
- Implemented various data imputation and feature engineering techniques to enhance model performance.

Cold Emails Using GenAI | LangChain, GroqCloud, Kubernetes, Streamlit, Hugging Face, DeepSeek-R1, Llama-3.3-70b Jan 2025

- Built GenAI-powered job matching and automated cold email system using LangChain and HuggingFace transformers.
- Implemented RAG architecture for personalized messages& created CI/CD pipelines with GitHub Actions and Docker
- Designed Kubernetes-managed microservices with 99.9% uptime on Google Cloud Run

Intern Intel | Generative AI, FAISS, JavaScript, React, NodeJs, MongoDB, Search.io API

February 2022

- Designed and implemented a web application facilitating research enthusiasts to search for internship roles aligning with their field of interest on the website of the top 10+ international colleges.
- Integrated custom AI search pipeline, user authentication, and automated email notification for an internship opening under a professor, lab, or college marked as favorites by the user.

LEADERSHIP / EXTRACURRICULAR

- CodeForces: Expert**, Global Rank Round # 820(Div3): **339** of 47K participants, **CodeChef: Starters Div 2 Global Rank: 99**
- Google Kick Start** - Global Rank:**715** (Round C), **OPPO SES Codejam'22** - Global Rank:**7** among 5K+ participants
- Track Prize Winner** of **Hackverse'22**, an international hackathon conducted by NITK
- Global Rank 2** in WIDS Datathon-2 2024 among 500+ teams from across 100+ countries
- Team Captain, **Robocon** Center for System Design (CSD) NITK: Managing an exclusive robotics club(**45 members**)