Poornachandra Doddi.

 github.com/Poornakgps | linkedin.com/in/poornachandra-doddi | poornakgps123@gmail.com | ☎ +91-9550401251

EDUCATION

Indian Institute of Technology (IIT) Kharagpur, India   2021 - 2025
Bachelors of Technology in Chemical Engineering   CGPA: 8.52/10.0

WORK EXPERIENCE

Xavica Software Solutions Private Limited-QWIPO | Software Developer Intern   [May'24 - July'24]
- Built SKU product categorization model using **TF-IDF** and **Cosine Similarity** with **0.93** accuracy, evaluated by **F1-score**
- Designed **5+ interactive dashboards** in **Metabase** to display business data, helping stakeholders make better decisions
- Contributed to **ONDC** app development by gathering resources and implementing code to enhance digital commerce

NLP Research Intern | IIT Kharagpur   [Feb' 23 – Apr' 23]
- Extracted 48 important Physics topics from 250 documents using **LDA (Latent Dirichlet Allocation)** probabilistic model
- Tackled the problem of converting a document multigraph to a directed acyclic graph by applying **Minimum FAS**
- Applied libraries such as **NLTK**, **NetworkX**, **Gensim** to develop the sequencing algorithm to achieve the optimum outcome

Computer Vision Research Intern | IIT Hyderabad   [Apr' 23 - July' 23]
- Experimented with 3D Object Tracking models on LiDAR data for autonomous vehicle safety and navigation
- Utilized Detectors like **virconv** and **CasA** for 3D Object Detection from LiDAR point clouds to obtain detections
- Analyzed results by visualization and fine-tuned the model, achieved HOTA score: **80.45%** on Kitti dataset

PROJECTS

Dynamic Vehicle Route Planning   **Aug '23 - Present**
Prof. Arnab Sarkar, Advanced Technology Development centre, IIT Kharagpur
- Formulated Constraint Satisfaction Problem (CSP) for order allocation, optimizing vehicle assignment for **500 orders**
- Executed **Heuristic and Greedy** Algorithms to find best route for vehicles, providing a baseline optimized routes
- Used SUMO simulator for traffic modeling and integrated OpenStreetMap data, ensuring accurate real-world scenarios

AI-Driven Smart OS Assistant   **Jul '23**
Python, LangChain   **OS Assistant**
- Utilized **LangChain** and **LangGraph's React Agent** to integrate chatbot with **Gemini** and **GPT** models
- Leveraged **FAISS** vector database and Google's **Generative AI Text Embedding** Models for app, file, and folder search
- Automated GitHub file pushing and email management with **LangChain Gmail Toolkit** for searching, and sending emails
- Enabled system controls for web search, file creation, settings access, and **PowerShell command** execution.

To-Do Serverless Application   **July '24**
AWS Cloud, Python   **To-Do**
- Developed a serverless To-Do application using **AWS Lambda**, **API Gateway**, and **DynamoDB** for **100+**CRUD operations
- Automated task archiving using Lambda functions and integrating **Amazon S3** for seamless long-term storage
- Engineered a fault-tolerant, scalable backend system using AWS Lambda, with **CloudWatch** integration for monitoring

Demand Paged Virtual Memory   **Feb '24**
Operating Systems, C   **DPVM**
- Simulated demand-paged virtual memory with **LRU replacement**, optimizing memory management for**100+ processes**
- Formulated **MMU** routine for virtual-to-physical address translation, boosting system performance for **50+ processes**
- Implemented an **FCFS** scheduler to manage process execution, monitor process states, and maintain the ready queue

ACHIEVEMENTS

- Secured an **All India Rank** of **9704** out of **0.14 M+** candidates in **Joint Entrance Examination Advanced** 2021
- Earned the title of **Expert** on **Codeforces** with rating of **1603**, placing in the top **2.0%** of contestants(profile: chandu1479)
- Achieved the **4-star** coder designation on **CodeChef** with a **1894** rating, ranking in the top **1.8%** of participants globally

TECHNICAL SKILLS

Languages & Web Technologies: C++ | C | Python | HTML | CSS | JavaScript | FASTAPI | SQL
Frameworks: LangChain | LangGraph | RAG | Vector Databases | PyTorch | TensorFlow | Hugging Face

COMPETITIONS AND CONFERENCE

- Attained a global rank of **452** and **631** in Codeforces Division.3 Round 917 and 913 respectively (out of **20k+ participants**)
- Secured **87th** and **294th** positions in Codechef Division 2 Rounds 151 and 153, competing against over **2k+ participants**

COURSEWORK

Undergraduate Courses: Programming and Data Structures | AI foundations and applications | AI for economics
MOOCs: Machine Learning | Ultimate AWS Certified Solutions Architect Associate SAA-C03(Udemy)