

# Poornachandra Doddi.

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## EDUCATION

**Indian Institute of Technology (IIT) Kharagpur, India** 2021 - 2025  
Bachelors of Technology in Chemical Engineering

## WORK EXPERIENCE

**Xavica Software Solutions Private Limited-QWIPO | Software Engineer Intern** [May 2024 - July 2024]

- Python, Scikit-learn, Metabase
- 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
  - Contributing to the development of the **ONDC** app by gathering code implementations to enhance digital commerce

**NLP Research Intern | IIT Kharagpur** [Feb 2023 – Apr 2023]

- Python, NLTK, Gensim, NetworkX
- 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

## PROJECTS

**Dynamic Vehicle Route Planning** [Aug 2024 - 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

**Multi-Agent AI Orchestrator for PDF Q/A** [Jan 2025 - Present]

- FastAPI, Streamlit, Google Gemini 2.0, LangChain, Whisper, FAISS, Python **PDF Q/A**
- Built a robust **multi-agent AI orchestrator** for PDF question answering using **FastAPI** and **Streamlit** for user interaction
  - Integrated **Google Gemini 2.0** for high-quality Q/A, **LangChain** for dynamic text chunking, and FAISS, improving document retrieval speed by **40%**
  - Leveraged **Whisper** for speech-to-text capabilities, enabling voice-driven queries and enhancing user experience

**To-Do Serverless Application** [July 2024]

- 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

**CliqueConnect | Backend Development** [July 2024]

- Nodejs, PostgreSQL **CliqueConnect**
- Designed and implemented a robust backend for a social media platform using **Node.js**, integrated with **PostgreSQL**
  - Developed comprehensive functionalities for user management, **post** creation, **user** interactions, and follower notifications
  - Leveraged libraries like **Express**, Sequelize, Multer, and **JSON Web Token** to ensure secure, and scalable API development

## 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 | JavaScript | SQL  
**Libraries & Frameworks:** C++(STL) | Nodejs | FASTAPI | Networkx | Reactjs | Tailwind  
**Cloud & Dev Tools:** AWS | Docker | GitHub | Postgres | MongoDB | MySQL | Metabase  
**Software Development Skills:** Object-Oriented Programming | Operating Systems | DBMS

## 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)