

Chethan Reddy

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EDUCATION

- **Vellore Institute of Technology** Vellore, India
Bachelor of Engineering in Electrical and Electronics: CGPA: 8.10

TECHNICAL EXPERIENCE

- **Staple IO — AI Software Engineer** Singapore — Remote
SCANNING Team *May 2024 - Present*
 - **Document Analytics Enhancement:** Specializing in enhancing document analytics through advanced machine learning techniques and leveraging large language models.
 - **Computer Vision for Document Detection:** Implementing computer vision techniques for detecting document elements such as stamps, logos, and signatures.
 - **Feature and Functionality Development:** Focusing on developing cutting-edge features and functionalities while ensuring scalability to accommodate heavy user traffic.
 - **Handling Large Volumes of Documents:** Managing the processing of 100k documents per month for major clients, including over 50 big customers like PandG, EY, and Food Panda.
 - **DevOps Integration:** Incorporating DevOps practices such as Kubernetes, Bastion host, AWS, OCR services, LLM services, Langchain, and prompt optimization.
- **Dotnitron Technologies — AI Software Engineer** United States — Remote
Alvarez & Marsal's Project: Diligence GPT *Dec 2023 - May 2024*
 - **Architect for RAGs in Diligence GPT Project:** Designed robust architectures for Retrieval-Augmented Generative Models (RAGs) in collaboration with cross-functional teams.
 - **Backend Development with Python and AI Integration:** Led Python backend development, particularly in Django, FastAPI, and ArangoDB, while integrating AI tools and libraries for intelligent applications.
 - **Innovative Solutions with Langchain, OpenAI, and RAGs:** Applied expertise in Langchain, OpenAI, and RAGs to develop and deliver innovative solutions, ensuring high-quality software through code reviews and testing.
- **Bajaj Finserv Health — Data Science Engineer** Pune . Maharashtra . India — On-site
Intern, Data Team - InSightRX *May 2023 - Jul 2023*
 - **Led Development of Lab Test Recommendation Systems:** Championed the development of user-friendly lab test recommendation systems, yielding a substantial 30% increase in operational efficiency.
 - **Applied Cutting-edge Image Analytics Technologies:** Leveraged advanced technologies like LLMs, OCR, NER, and YOLO to ensure precise image analytics, thereby enhancing decision-making processes.
 - **Optimized Data Retrieval for Elasticsearch and SQL:** Revamped data retrieval processes, optimizing for both Elasticsearch and SQL, resulting in an impressive 80% speed enhancement for swift and efficient access to critical information.
- **TIFAC - VIT - Vellore — Software Engineer** Vellore . Tamil Nadu . India — On-site
Backend Lead, Physio Plus *Nov 2022 - Mar 2023*
 - **Directed Backend Development:** Led the complete backend development of "Physio Plus" using FastAPI and MongoDB, ensuring a seamless patient data management system.
 - **Managed Daily Appointments:** Efficiently handled over 100 daily patient appointments, implementing AWS and a distributed architecture for optimized operational efficiency.
- **Smart Diet Planner — Machine Learning Researcher** New Delhi . India — Remote
R&D Team *Aug 2022 - Nov 2022*
 - **Implemented AI Solutions:** Developed and implemented AI solutions, including search engines and automated PDF analysis, significantly enhancing the app's functionality.
 - **Enhanced User Experience:** Improved the user experience for over 850k users by integrating advanced AI features for improved interaction.
 - **Developed Diet Chatbot with PaLM LLM:** Engineered a customized chatbot utilizing PaLM LLM for recommending diets tailored to various medical conditions and complications, successfully addressing diet-related problems.

TEACHING AND MENTORING EXPERIENCE

- **Edvi — Software Engineer Mentor** Delhi . India — Remote
Part-time Mentor *Oct 2023 - Present*
 - **Comprehensive Mentorship Across Disciplines:** Deliver mentorship to students and professors across various academic levels, offering guidance in a spectrum of subjects such as Data Science, Machine Learning, Database Management Systems, System Design, Low-Level Design (LLD), High-Level Design (HLD), Data Structures, Algorithms, Computer Networking, and Digital Electronics.
- **Modo Edulabs — Machine Learning (Content Associate)** Bangalore . India — Remote
Content Creator and Curriculum Developer *Aug 2022 - Mar 2023*
 - **Curriculum Design and Development:** Designed and developed a structured curriculum for Machine Learning, incorporating hands-on projects. Managed and modified content for multiple Python courses, while mentoring and training learners in basic to advanced levels of Machine Learning with Python programming.

HACKATHON ACHIEVEMENTS

- **Bitget U-30 Hackathon: Most Viable Project** - Awarded under the most viable project category.
- **Top 5 in Canara Bank Dacoethon 2024:** Achieved a Top 5 position in Canara Bank Dacoethon 2024.
- **Finalist of GLC - HP Hackathon 2024:** Recognized as a Finalist in the GLC - HP Hackathon 2024.
- **Honeywell WeHack 3.0: 1st Place** - Secured by solving challenges in the domain of Video Analytics for CCTV cameras.
- **Bajaj Finserv HackerRx 3.0: 2nd Runner-up** - Achieved by addressing the problem of building search and recommendation systems.
- **Axis Bankathon: 1st Runner-up** - Earned recognition by employing LLM to solve the KRA's Query bot for employees.
- **Sirion Labs HackFest 1.0: Top 7** - Secured by building an optimization algorithm for rating suppliers.
- **Samsung Solve for Tomorrow: Top 5** - Attained by ideating AmbuFast for a 5-minute ambulance service.
- **Siemens Healthineers Shift Hackathon 2022: Top 10** - Secured by creating an application with computer vision for X-ray analytics.
- **Amadeus H4S: Top 5** - Secured by building a travel advisor using 3D graphs.
- **Make-a-thon: Top 10** - Attained by creating AI Sight to identify eye diseases with a smartphone camera.
- **SmartIdeathon 2023: Top 100** - Secured by creating an algorithm for multi-model transportation.
- **AI Arena 1.0: Top 10** - Attained by building a data analytics platform with prompt engineering.
- **Sparkathon Walmart: Top 7** - Secured by developing supplier analytics using LLMs.
- **Honeywell Hackwell 4.0: Top 10** - Secured by solving the problem of airport taxiing using neural networks.

PROJECTS

- **eduAId: Instructor Analytics Platform:** Developed eduAId to provide instructors with class analytics, including engagement and topics covered, with over 90% accuracy. Implemented multiple Langchain agents for robust analysis. Integrated Google Vision Pro for efficient conversion of handwritten notes to digital, enhancing accessibility and efficiency.
- **KaRmA - KRA-AI-Manager:** Developed a Chatbot and report generator to manage employees' performance utilizing advanced LLMs such as Mistral 7B and Llama. Integrated LangChain with an SQL database, featuring customized agents and prompts.
- **hAIr (AI in HR):** Designed and implemented a fully automated hiring process that comprehends candidates' resumes, ranks them using efficient parsing and keyword matching algorithms, generates customized questions, and evaluates candidates through video input.
- **Supplier Performance:** Analyzed the value of suppliers from over 7 million and provided the best supplier based on specific needs using scoring algorithms.
- **Keywords Recommendation Engine:** Implemented a robust keyword recommendation engine using the Linear Support Vector Machine algorithm to enhance search efficiency with fuzzy algorithms.
- **WeDio - Finding Disruptions in CCTV Videos:** Utilized geometric math analysis on a frame-to-frame basis to detect various disruptions in CCTV footage, including blurriness, black screen freezing, etc., using Deep Vision.

TECHNICAL SKILLS

Languages: C++, Python, Go, SQL, and No-SQL.

Technologies/Frameworks/Libraries: AI, ML, NLP, Computer Vision, Deep Learning, FastAPI, MongoDB, ElasticSearch, ArangoDB, SQL, LLMs (GPT, PaLM, Llama, etc.), OCR, NER, YOLO, AWS, Distributed Architecture, Linear Support Vector Machine, Neural Networks, Geometric Math Analysis, Deep Vision, Render (Cloud Services), Keras, and Tensorflow.