

# Madhava Reddy

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## EXPERIENCE

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### Virtual Research Consultant | WorldQuant

Mar 2022 – Feb 2024, Part-Time, Hyderabad, India

- Generated high Sharpe Ratio tools for arbitraging and High-Frequency Trading.
- Developed market-neutral trading algorithms for the American, European, and Asian stock markets.
- Contributed 500+ trading strategies to the alpha pool, with an average strategy life of 2 years.

### Software Engineer Intern | Infor

Apr 2022 – Sep 2023, Internship, Hyderabad, India

- Mastered Java, SQL, LPL, and ERP functional modules through intensive training, building a strong foundation in enterprise software systems.
- Delivered exceptional performance during a 6-month internship, earning a full-time role based on contributions to ERP development.
- Gained hands-on experience in business applications, bridging technical skills with real-world problem-solving.

### Software Engineer | Infor

Oct 2023 – Present, Full-time, Hyderabad, India

- Develop and maintain key FSM (Financials and Supply Management) ERP modules, including Customer Order, Billing, Payables, and Matching.
- Leverage problem-solving skills and adaptability to enhance product quality in a fast-paced software development environment.
- Collaborate with cross-functional teams to resolve customer-reported issues and internal bugs efficiently.

## PERSONAL PROJECTS

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### Multi-Agent RAG-Based Research Assistant | Python, LangChain, Grok API, FAISS, Streamlit

- Engineered an advanced Streamlit application integrating a multi-agent system with Retrieval-Augmented Generation (RAG) for synthesizing insights from PDFs, YouTube videos, websites reducing research time by 30%
- Designed three agents: an extractor (content summarization), a RAG agent (FAISS vector store with HuggingFace embeddings), and a critic (answer refinement), leveraging LangChain and Grok's Gemma2-9b-it LLM.
- Demonstrated expertise in NLP, vector search, multi-agent orchestration, and scalable data processing.
- Generates customized cold emails tailored to each job listing for better engagement.

### Cold Email Generator for Services Companies | Python, Groq, Langchain, Streamlit

- Built a cold email automation tool using Groq, LangChain, and Streamlit to help users generate personalized outreach emails
- Extracts job listings from a company's careers page by analyzing its URL
- Uses a vector database to retrieve relevant portfolio links based on job descriptions
- Generates customized cold emails tailored to each job listing for better engagement.

## EDUCATION

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### Mahatma Gandhi Institute of Technology

*Bachelor of Technology in Information Technology | Aug 2018 – July 2022 | Hyderabad, India*

**Relevant coursework:** Data Structures, Design and analysis of Algorithms, Programming Through Java, Database Management System, Operating Systems, Software Engineering.

## SKILLS

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**Methodologies:** Agile, Scrum, Object-Oriented Programming (OOP), Functional Programming, CI/CD

**Artificial Intelligence:** Machine Learning, Deep Learning (RNNs, LSTMs, Transformers, VAEs, GANs), Retrieval-Augmented Generation (RAG), Large Language Models (LLM)

**WebTechnologies and Others:** HTML, CSS, JavaScript, Bootstrap, Figma, Data Structures and Algorithms

**Programming and Tools:** Python, Java, SQL, JavaScript, LPL, Hugging Face Transformers, Streamlit, Groq, Langchain, Langsmith