RITIK RAJ

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WORK EXPERIENCE

scale.jobs • **India**   **Apr 2024 - Dec 2024**

Web Developement Intern

- Engineered AI-driven features for a real-time web platform using the MERN stack, improving user interactivity.
- Boosted front-end performance by 30% via React.js component optimization and lazy loading strategies.
- Collaborated with cross-functional teams to integrate backend APIs and ensure seamless data flow.

Lamarr • **Remote**   **Jan 2024 - Mar 2024**

Frontend Development Intern

- Boosted web interface performance by 20% within 3 months by leveraging Next.js 13 and TypeScript, achieving optimal scalability across devices.
- Integrated REST APIs with dynamic UI components using Tailwind CSS and React Hooks, enhancing user experience and interactivity within 4 months.
- Developed modular components that improved maintainability by 20% within 3 months, enhancing the overall codebase efficiency.
- Collaborated with backend and product teams to deliver features within 4 weeks, enhancing project efficiency in an agile environment.

SKILLS

- **Languages:** C++, HTML, JavaScript, Python, React, SQL
- **Software:** Git/ Github, Jupyter Notebook, Mongoose, Power BI, Slack, Tableau, VS Code, Webpack
- **Framework:** Ansible, Bootstrap, Jenkins, Node, React, SAP ABAP, Tailwind CSS
- **Library:** Express, Material UI, Next. JS, Node. JS, React. JS
- **Database and Cloud:** Microsoft Azure, Mongo DB, Mongo DB Atlas, Mysql, NoSQL
- **AI/ML Technologies:** NLP, NumPy, Pandas, PyTorch, Scikit- learn, TensorFlow
- **Methodologies:** Agile, CI/ CD, Enterprise Systems, Scrum, Version Control
- **Non-technical:** Agile Methodologies, Collaboration & Teamwork, Enterprise Systems, Version Control

EDUCATION

Bachelor of Technology - BTech in Computer Science Engineering

CMR Institute Of Technology • Bengaluru   Sep 2021 - Jun 2025

A Bachelor's in Computer Science Engineering provides expertise in programming, cloud computing, and databases, preparing graduates to design innovative web/mobile applications and excel in dynamic roles within global technology teams.

CERTIFICATIONS

JsonPowerDB Beginner Program   May 2025 - May 2025

Login2Xplore

Advance Software Engineering Job Simulation   Jul 2024 - Jul 2024

Walmart

Software Engineering Job Simulation   Jul 2024 - Jul 2024

JPMORGAN Chase & Co.

Cybersecurity Analyst Job Simulation   Jan 2023 - Jan 2023

TCS

The Complete Python 3 Course: Beginner to Advanced!   Jun 2022 - Aug 2022

Udemy

Class Representative   Oct 2021 - Apr 2022

CMR Institute Of Technology

AWARDS & SCHOLARSHIPS

Won 2nd prize in National Science Day project exhibition   Apr 2024

CMR Institute of Technology

Rotary Youth Leadership Awards Program   Feb 2023

Rotary Bangalore

PROJECTS

SEMANTIC SEARCH FOR ABSTRACT RETRIEVAL IN IPR USING NLP TECHNIQUES   Apr 2025 - Present

CMR Institute of Technology

- Developed a semantic search system for retrieving Indian patent abstracts using advanced NLP techniques.

- Used Sentence Transformers (GTR-T5) to generate contextual embeddings for both queries and documents.

- Integrated FAISS for fast and scalable vector similarity search across large patent datasets.

- Combined traditional BM25 with deep learning-based methods to improve retrieval precision.

- Built the system using Python, Hugging Face, scikit-learn, and Git for development and version control.

ESG Monitoring with AI Chatbot   Jan 2024 - Mar 2024

CMR Institute of Technology

- Built an AI-powered chatbot integrated with the MERN stack to enhance user interaction.

- Used Machine Learning algorithms to track and analyze ESG metrics in real time.

- Integrated Optimizely-style dynamic content personalization logic.

- Integrated ML for ESG metrics analysis and NLP-powered chatbot for user interaction.

- Demonstrated project management by leading feature planning and deployment.

User Authentication with AI Security Measures   May 2023 - Jul 2023

CMR Institute of Technology

- Implemented AI-based anomaly detection to enhance authentication security.

- Integrated OTP verification, JWT tokens, and password hashing for robust security.

- Gained experience with backend scripting and security protocols in Unix-like systems.

VOLUNTEERING & LEADERSHIP

National Cadet Corps   Apr 2016 - May 2018

CADET