

VARSHITH RAJARAPU

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SUMMARY

Full-stack developer experienced in building scalable web applications and AI-powered systems using FastAPI and Next.js. Strong in API design, system architecture, and database integration with a focus on performance, scalability, and real-world usability. Experienced in deploying production-ready applications and optimizing workflows using modern development tools.

EDUCATION

University of Wisconsin-Eau Claire, Wisconsin

Bachelor of Science in Computer and Information Science

Expected May 2026

Certificate: Information Systems

TECHNICAL SKILLS

Languages: Python, JavaScript, TypeScript, SQL, HTML5, CSS3, C, C++, C#

Frontend: React.js, Next.js, Responsive UI, Tailwind CSS

Backend: FastAPI, REST APIs, Authentication, Microservices

Databases: PostgreSQL, MySQL, Query Optimization, Indexing

Tools: Git, Docker, GitHub, VS Code

RESEARCH

Ad Fraud Detection — University of Wisconsin-Eau Claire, Eau Claire, Wisconsin

Sep 2024 – Dec 2024

Tech: Python, Pandas, Scikit-learn, NumPy, Matplotlib, Jupyter Notebook

- Processed and cleaned datasets with over 100,000 records using Pandas to identify fraudulent traffic patterns.
- Trained classification and anomaly detection models, improving detection performance by 20–25%.
- Engineered 15+ features and evaluated models using precision, and recall.
- Generated visual reports using Matplotlib to analyze fraud trends and model outputs.

PROJECTS

AI Resume Analyzer (LLM + SaaS)

Jan 2026 – Present

Tech: Python, FastAPI, OpenAI API, Next.js, React.js, PostgreSQL, Docker, Git, REST APIs

- Working on a backend system that analyzes resumes and generates ATS scores using LLM workflows.
- Created API endpoints for resume parsing, scoring, and job matching features.
- Connecting the system with external job search APIs to match resumes with relevant job postings.
- Reduced manual resume review time from 10+ minutes to under 3 seconds per resume.
- Structured backend services to handle large inputs and improve performance.

GenAI Developer Assistant (LLM + RAG)

Oct 2025 – Mar 2026

Tech: LangChain, OpenAI API, Vector Embeddings, FAISS, PostgreSQL, Python

- Created a RAG-based assistant to help developers understand codebases with 5,000+ lines of code.
- Converted code into vector embeddings and stored them using FAISS for semantic search.
- Set up API endpoints to return relevant code and explanations in real time.
- Reduced time spent searching and debugging code from several minutes to under 10 seconds.

AI Agent – F1 2026 Winner Prediction

Jan 2026 – Feb 2026

Tech: Python, Pandas, Scikit-learn, NumPy, Matplotlib, Jupyter Notebook

- Developed a machine learning model using Formula 1 data from 20+ seasons.
- Processed datasets with over 50,000 race records including driver stats and track conditions.
- Trained models reaching about 70–75% accuracy for race outcome prediction.
- Created visualizations to study driver performance and trends across seasons.

Real-Time Chat Application with AI Moderation

Feb 2025 – Apr 2025

Tech: FastAPI, Next.js, React.js, WebSockets, PostgreSQL, OpenAI API, Docker, Async Processing, Java

- Built a chat system using WebSockets to support real-time communication between users.
- Handled authentication, message flow, and database storage on the backend.
- Added AI moderation to detect and filter harmful messages within milliseconds.
- Solved latency issues using asynchronous processing and batching.
- Supported 50+ concurrent users during testing without performance issues.

Full-Stack Web Application

Jan 2024 – Apr 2024

Tech: Next.js, FastAPI, Python, PostgreSQL, JavaScript, HTML, CSS, SQL, Git, Java

- Built a full-stack application connecting REST APIs with a dynamic frontend.
- Improved query performance by optimizing SQL and indexing (400ms to under 250ms).
- Organized the code into modular components to make it easier to maintain.
- Improved UI responsiveness across different devices and screen sizes.