Rudra Patel

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EDUCATION

Lewis University | GPA: 3.9/4.0

Romeoville, IL

B.S. Computer Science, Artificial Intelligence Concentration

Expected May 2026

- M.S. Computer Science, Artificial Intelligence (2026-2027)
- Relevant Coursework: Data Structures & Algorithms, Software Engineering, Database Systems, Object-Oriented Programming, Artificial Intelligence, Machine Learning, Linear Algebra

EXPERIENCE

Full-Stack Software Engineer

May 2025 - July 2025

Braceville, IL

Hometown Liquor

- Engineered an e-commerce platform for 750+ products, using React, Tailwind, and Firebase, with mobile-first responsive design and real-time inventory validation
- Optimized search performance and reduced costs by implementing a pagination and caching system with Algolia, maintaining sub-200ms search times while achieving a 30% reduction in database-related operational costs.
- Improved customer conversion and product discovery by implementing a search-centric UX design, resulting in a 40% increase in product visibility and a 25% rise in user conversion rates
- Automated business operations by developing a real-time order management system, which reduced out-of-stock incidents and enhanced customer satisfaction through automated email confirmations

PROJECTS

Property Pulse | React, TypeScript, Spring Boot, Scikit-learn, PostgreSQL

July 2025 - Present

- Built AI-powered real estate investment platform helping users evaluate properties and make data-driven investment decisions using React/TypeScript, Spring Boot, PostgreSQL, and ML integration
- Implemented security with **Spring Security**, **JWT Authentication** and role-based access control across **8**+ **REST endpoints** for property CRUD operations, and market data retrieval
- Designed a multi-service architecture supporting **microservices deployment**, with **ML pipeline integration** for investment scoring, price prediction, and automated market trend analysis
- Created responsive mobile-first design ensuring optimal user experience across mobile, tablet, and desktop users

QuizMaster | React, JavaScript, Node.js, Tailwind CSS, GCP, Cloud Firestore, Agile

August 2025 - Present

- \bullet Cut application load times by over 80% from (886ms to 147ms) by leading a 4-person team in a full-scale architectural refactoring of a 7,000-line React codebase
- \bullet Reduced code base complexity by 33% by implementing a unified design system and state management, enabling faster and more consistent feature development
- Enhanced maintainability and scalability by building a service layer architecture, successfully migrating business logic from 40+ components to establish a clear separation of concerns
- Optimized Firebase backend reducing API calls by 83% and dashboard load times by 6x (less than 5s) through query batching and intelligent caching

MasterChef Claude | React, Claude API, Tailwind CSS, Firebase, Docker, AWS

Apr. 2025 - May 2025

- Built AI-powered recipe platform using Claude API, React, Node.js, delivering custom recipes within 5s through optimized prompt engineering and async request handling
- Engineered 3-layer error handling with input validation and real-time feedback ensuring reliable AI responses
- Simplified deployment with Docker containerization, reducing deployment time by 80% through automated CI/CD pipeline on AWS for faster feature releases

TECHNICAL SKILLS

Languages: Python, Java, JavaScript/TypeScript, HTML/CSS, SQL

Frontend: React, Tailwind CSS, Responsive Design, Mobile-First Development

Backend: Spring Boot, Node.js, Express.js, REST APIs, Microservices Architecture, Object-Oriented Design

Databases: PostgreSQL, MySQL, Firebase, MongoDB, Database Schema Design Cloud & DevOps: AWS, GCP, Azure, Docker, GitHub Actions, CI/CD pipelines

Tools: Maven, JWT Authentication, Agile development, Git, Figma