

# RAJ SHAH

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## EDUCATION

**Syracuse University**, Syracuse, NY August 2022 - May 2024  
Master of Science in Computer Science | Teaching Assistant for Database Management Systems GPA – 3.81/4.0  
**Vishwakarma Institute of Information Technology**, Pune, MH August 2017 - May 2021  
Bachelor of Technology in Computer Engineering | First rank Holder GPA – 3.97/4.0

## SKILLS

**Programming Languages:** C, C++, Python, Java, JavaScript, TypeScript, C#, PHP, HTML5, CSS, Swift  
**Frameworks and Libraries:** Spring Boot, Flask, Django, .NET, React.js, Angular, Express.js, Next.js, Node.js  
**Databases:** SQL, PostgreSQL, Oracle Database, SQLite, MongoDB, Firebase, Amazon RDS, DynamoDB  
**DevOps and Cloud:** Git, Bitbucket, Docker, Kubernetes, Jenkins (CI/CD), Terraform, AWS (S3, Lambda, SQS)  
**Other Tools and Platforms:** Kafka, RabbitMQ, Jira, Confluence, Postman, Unix/Linux/Bash, Swagger

## WORK EXPERIENCE

**Software Engineer Intern** | Syracuse University, Syracuse, NY June 2024 - Present

- Orchestrated a scalable Library Booking System using microservices architecture with **React.js, Python, Django, and MongoDB**, ensuring high availability for 1,000+ users to seamlessly manage library records and bookings.
- Enhanced concurrent inventory management using **GraphQL**, advanced data structures, and MVC architecture, achieving a 25% increase in resource utilization and reducing scheduling conflicts.
- Leveraged a cloud-based solution utilizing **AWS, Docker, and Kubernetes** which streamlined deployment processes by 30%, while achieving an impressive reduction in update cycles through optimized **CI/CD** pipelines.

**Software Engineering Intern** | Savana Inc, Malvern, PA June 2023 - August 2023

- Engineered a B2C platform leveraging **Angular and C# with .NET**, reducing environment migration downtime by 30% by optimizing deployment workflows and resolving rate limiting bottlenecks.
- Revamped application table interactivity with **Redux**, reducing UI rendering time by 40% and optimizing backend communication via **REST APIs**, enhancing experiences for 7,000+ unique users per month.
- Spearheaded an advanced **Redis** caching system to optimize data retrieval from the database; reducing average page load time by 25% and directly benefiting more than 5,000 active users consuming real-time information.

**Software Engineer** | Accenture, Pune, MH June 2021 - July 2022

- Re-engineered order fulfillment modules into microservices using **Java, Spring Boot, IBM Sterling, and SQL**, achieving a 35% efficiency boost through API Gateway, load balancing, and region-specific optimizations.
- Implemented secure authentication with **OAuth2 and HTTPS** encryption, transitioning to **API Gateway and MySQL** for data storage, resulting in a 60% improvement in data protection and compliance assurance.
- Automated back-end testing workflows with **Jenkins and SonarQube**, reducing integration errors by 20%, and accelerating deployment timelines.

## ACADEMIC PROJECTS

### Public Curative Health Care and Wellness Chatbot

- Developed an AI-driven healthcare chatbot using the **MERN stack, Flask, and DialogFlow**, integrating **Web-Socket** for real-time communication, providing health advice and hospital location services to 500+ patients.
- Led a team of four to implement a disease prediction algorithm using **cosine similarity, NLTK, and LSTM**, achieving 90% precision in disease predictions and increasing patient participation by 15%.

### University Shuttle System

- Designed and deployed the backend for an University Shuttle System using **Java, Spring Boot, and PostgreSQL**, achieving a 30% reduction in ride request processing times.
- Devised 15 **REST API** endpoints to handle concurrent requests and calculate ETAs, containerizing the application with **Docker**, resulting in an 20% increase in system scalability.

### TrackIT - Expense Made Easy

- Built an **iOS** expense tracking application, utilizing **Swift and a Node.js** backend with a robust architecture, featuring expense tracking and YouTube API integration, improving transaction processing speed by 20%.
- Streamlined client-server interactions using MVVM architecture and integrated **MapKit** for location-based tracking, enhancing banking access by 15% and promoting smarter financial habits.