

# RAJESH BADAM

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## Education

**Arizona State University** - *Masters of Science in Computer Science* **Aug 2021 - May 2023**  
**GITAM University** - *Bachelor of Engineering in Computer Science* **Jun 2015 - May 2019**

## Technical Skills

**Programming Languages:** Java, Python, PL/SQL, C++, C#, Shell/Bash  
**Database Technologies:** Oracle SQL, MySQL, MongoDB, NOSQL, PostgreSQL  
**Web Technologies:** HTML, CSS, jQuery, RESTful web services, .Net, Spring framework, Angular, HTTP, React  
**Miscellaneous:** Kafka, RabbitMQ, Git, SVN, Amazon AWS, Jira, Jenkins, Postman, OAuth, Firebase

## Professional Experience

**Software Developer** - *Arizona Department of Environmental Quality, Phoenix, AZ* **Jun 2023 – Present**

- Optimized Oracle database performance using PL/SQL by designing efficient stored procedures, tables, and collections reducing context switching for improved query execution speeds.
- Played a pivotal role in achieving the annual team goal by migrating two legacy web applications from Oracle Forms to Oracle APEX, resulting in increased user satisfaction.
- Enhanced database efficiency through indexed tables, resulting in a 20% reduction in query response time, and Simplified complex queries with Oracle views, significantly improving system performance.
- Leveraged advanced PL/SQL features, including bulk collection, Records, Object types, and Dynamic SQL, achieving a 30% performance improvement in PL/SQL objects.

**Software Engineer Intern** - *Regology, Inc. Palo Alto, California.* **May 2022 – Aug 2022**

- Transformed data retrieval by developing REST APIs with multithreading techniques, resulting in a 50% reduction in processing time for seamless integration with external sources.
- Implemented microservices using .Net to enable communication with the medical devices using BLE technology and collect real-time patient vital signs for timely health status updates in less than 3 seconds.

**Software Engineer** - *Tata Consultancy Services, India.* **Jul 2019 – Jun 2021**

- Designed and Developed the industry leading gaming B2C Hybrid Mobile application, used by more than 20k users, using ReactJS and .Net frameworks.
- Increased website traffic by 10%, by developing business intelligence dashboard using React that gave the business and sale teams to target the customers with promotional banners.
- Implemented OAuth authentication protocols, ensuring secure access control for users by utilizing route guards, resulting in a 50% reduction in unauthorized access attempts.
- Integrated signalR with React framework utilizing web sockets enabling real-time updates, improving overall accuracy.
- Designed and deployed automatic consumer API that fetches product details and pushes to Kafka streams from an external API. Enhancing the accuracy of 15% of pipeline data.

**Software Developer** - *Resolve Systems, India.* **Sep 2018 – May 2019**

- Collaborated on a web app for hybrid IT network device discovery and monitoring, boosting admin response rates to network outages by 40% with a real-time dashboard.
- Automated device health monitoring using Python and networking protocol SDKs, cutting manual monitoring by 40%. Achieved real-time synchronization of client data using web sockets.
- Established a RabbitMQ queue system for receiving and processing requests and optimized proprietary libraries for device discovery, leading to a 23% decrease in size and improved algorithms.

**System Engineer Intern** - *FixStream PVT LTD, India.* **May 2018 – Aug 2018**

- Developed features and enhanced the UI for a Linux kernel-based product for business communication.
- Introduced new and upgraded existing libraries, APIs, and executables of third-party Open-Source Software (OSS) like OpenSSL, and DHCP into the product software module.

## Course Projects

**Secure Hospital System** | *Java, My SQL, Selenium, Spring boot, Angular, Google Services, Hyperledger fabric, AWS.*

- Designed and developed a secure hospital system with security features that can defend the website against cyber attacks and developed digital assistants for the website to enhance user experience.

**ASL Finger Spelling Project** | *Python, PoseNet, CNN, TensorFlow*

- Developed a Flask-based web app classifying user-uploaded hand sign images. Achieved 96% validation, 94% test accuracy with custom CNN, and 97% with pre-trained VGG-16 via transfer learning.