

Raj Patel

📍 Dallas, Texas 📞 (+1) 213-477-9195

Experience

Software Intern

Mar 2024 – Present

ICPC Foundation, Fremont, CA (Remote)

- Providing mentorship and training in competitive programming, data structures, and algorithms to students. Additionally, responsible for full-stack development, CI/CD, and maintenance of the platform for online coding competitions.

Software Development Engineer 2

Jun 2021 – Dec 2021

Adobe, India

- Developed a feature to enhance Acrobat PDF reader experience and emerged among winners in Hackathon held globally among the Adobe Acrobat division
- Implemented efficient data handling techniques and fixed major security issues for large-scale document processing
- Collaborated on a Smart collaboration feature of Acrobat PDF that enables users to share, communicate, and collaborate using documents both online and offline and resolved more than 50 performance issues in a span of 2 months.
- Improved the performance of Core Acrobat Libraries through better architecture changes in code and minimized the Application's latency by 18%

Lead Software Engineer

Jun 2017 – May 2021

Samsung Research, India

- Implemented database performance monitoring and optimization strategies, resulting in 30% faster query response times
- Spearheaded the architecture and development of a scalable big data analytics dashboard using Java, Angular, BigQuery, PostgreSQL, and Kafka
- Constructed a data lake leveraging ETL processes to consolidate and process data from various sources, decreasing customer bug reports by 15%
- Designed scalable database architecture employing sharding strategies and optimizing complex SQL queries
- Developed efficient ETL pipelines handling both batch and real-time data processing across multiple database systems
- Led the development of on-device AI solutions for recommendation integrated with big data systems
- Enhanced frontend/backend data transfer for Bixby (Samsung's intelligent assistant) with Java, Javascript, and REST, reducing man hours by 36%

Software Engineering Intern

Jan 2017 – May 2017

Samsung, India

- Developed a GUI-based Real-Time Memory Profiler Tool for Android Devices to analyze device's RAM and Storage Usage by different features and Apps using Python

Skills and Technologies

Programming Languages: C, C++, Java, Python, C#, Objective C, R, Unix, Object-oriented programming

Web Technologies: HTML, CSS, Javascript, AngularJS, PHP, ReactJS, NodeJS, TCP/IP, Distributed Systems, JQuery, Redux, Microservices

Databases & Systems: Linux, Windows, MacOS, SQL (MySQL, PostgreSQL, Oracle), NoSQL (MongoDB, Cassandra), SQLite, Data Warehousing (BigQuery, Snowflake, Databricks), Database Optimization, Query Tuning, Indexing Strategies, Database Sharding, Replication

Cloud & DevOps: Microsoft Azure, AWS, Google Cloud, Docker, Containerization, CI/CD, Git, REST API, Shell Scripting, System Design, Unit tests, SSO, OAuth, Spring Boot, Perforce, Maven, Jenkins, SDLC, Hibernate

AI/ML & Big Data: Deep Learning, NLP, Spark, Hadoop, Kafka, ETL, Pandas, Numpy, Scikit-learn, NLTK, Keras, TensorFlow, PyTorch, MATLAB

Education

University of Southern California (USC), Los Angeles, CA

Jan 2022 – May 2024

Masters (M.S.) in Computer Science

GPA: 3.65

Coursework: Databases, NLP, Machine learning, Information retrieval, Data Science, Mobile and Game development

Nirma University, India

Aug 2013 – May 2017

Bachelor of Technology in Computer Science and Engineering (among top 5% of batch)

Projects & Publications

Summarizing Text Documents with Large Language Models (LLMs) and Generative AI, USC

- Researched and evaluated different large language models (LLMs) and generative AI summarizers, including BART, on a massive dataset of medical reports. The goal was to compare the performance of these models in generating concise, human-like summaries to enable better understanding and interpretation of complex medical documentation.

Publications

- J. Shah, R. Patel, "Classification Techniques for Disease Detection Using Big Data," 2019 IEEE Conference