Akash Gajjar

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Education

University of Florida

August 2022 - Exp. December 2023

Master of Science in Computer Science

Gainesville, Florida

Dhirubhai Ambani Institute of Information and Communication Technology

August 2015 - May 2019

Bachelor of Technology in Information and Communication Technology; CPI: 8.31/10

Gandhinagar, India

Technical Skills

Languages: TypeScript, Java, Python, C, SQL

Frameworks: Angular, Express.js, Jasmine.js, Next.js, JUnit

Courses: Algorithms, Data Structures, Database Management Systems, Introduction to Cryptography, Distributed

Operating Systems Principles, Programming Language Principles, Computer Networks

Tools: Git, VS Code, Vim, Jupyter Notebook

Other: Node.js, React, Redis, GraphQL, Apache Kafka, PostgreSQL, MongoDB, Kubernetes

Experience

Infosys Limited

October 2021 - July 2022

Power Programmer Level II

Bangalore, India

Lead developer of a multi-million dollar revenue-generating web application development platform - Infosys Equinox Studio

- Responsible for site reliability (99.9% uptime) of the web applications deployed using the Infosys Equinox Studio platform
- Designed and developed telemetry capturing and processing pipeline capable of processing $\sim 3000~Messages/second$ using Apache Kafka, StreamSets Data Collector, and ELK stack
- Collaborated with technology architects to design the deployment flow for the Infosys Equinox Platform, reducing the deployment time from 3 hours to 30 minutes
- Mentored a Junior Developer

Infosys Limited
Power Programmer

June 2019 – September 2021

Bangalore, India

• Implemented RFC 6902 compliant JSON document versioning

- Developed a TypeScript library to generate a Server Side Rendered web application using a JSON configuration
- Decreased the site loading time from 20 seconds to 1.5 seconds by identifying and fixing computation-heavy code, configuring database indexing, making Kubernetes configuration changes, and setting up device based caching
- Developed an HTML Drag and Drop interface to generate JSON with a custom schema
- Implemented Distributed resource locking mechanism using Redis, AWS AppSync, and GraphQL Subscriptions

Dhirubhai Ambani Institute of Information and Communication Technology

Jan 2019 - May 2019

Machine Learning Research Intern

Gandhinagar, India

- Worked on Human Protein Atlas Image Classification problem
- Developed a Machine Learning model capable of localizing mixed patterns of proteins in microscopic images of human cell
- Studied existing methods used for protein classification
- Experimented with various hyper-parameters and features to study their effects on the accuracy of the machine learning model
- Implemented a Data Generator to prevent out-of-memory exceptions when training the machine learning model

Projects

Actor based Gossip and Pushsum protocols | Erlang

2022

- Designed, implemented, simulated, and analyzed randomized gossip and push sum protocols for decentralized dissemination of information and computation in distributed systems using the actor model in Erlang
- Simulated and analyzed various node failure models on the system

Actor based Chord Protocol | Erlang

2022

- Implemented, simulated, and analyzed Chord protocol for a peer-to-peer distributed hash table using the actor model in Erlang
- Developed a sample application on top of the chord to look up the value associated with a key

Programming Language Compiler | Java

2022

- · Defined lexical structure and phrase structure for a programming language with limited functionality
- Developed a Lexer to generate tokens from an input program
- Implemented a Parser to generate an Abstract Syntax Tree from an input of tokens