Shashank Kumar Hayyal

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Education

University of Florida Gainesville, FL
Masters of Science in Computer Science *Aug 2021 – Present*
courses: Analysis of Algorithms, Distributed Operating System Principles, Distributed Multimedia Systems

Jawaharlal Nehru Technological University Hyderabad, IND
Bachelor of Technology in Computer Science & Engineering *Aug 2014 – May 2018*
courses: Software Engineering, Database, Algorithms, Data Structures, Operating Systems, Programming languages using Java, Computer Networks

Experience

Software Development Engineer Mar 2018 – Jul 2021
OpenText Technologies *Hyderabad, IND*

- Worked as a part of document viewer team, build and design web application to render documents.
- Reduced the document rendering time by 75% for zoom operation with no loss in quality.
- Reduced the memory consumption of WebViewer product by fixing the critical memory leak and managing the threads used for rendering.
- Improved the UI of the WebViewer application and reduced the number of clicks by 57% for most used functions like annotations.
- Made the product more modular by abstracting out functionalities and creating microservices.
- Improved the performance of Application by reducing the critical/major bug count by 50%.
- Improved the performance for asynchronous operations by reducing the wait-time for customer by using message queues
- Added REST API to fetch details about the documents from the Archive/Content servers.
- Automated the upgrade of Imaging WebViewer product on Linux platform.
- Implemented auto-save functionality for annotations to improve the user interaction with the system.

Software Engineer - Intern Dec. 2017 – Mar. 2018
OpenText Technologies *Hyderabad, IND*

- Accelerated product testing by automating the tests using VB Scripts.
- Improved the product quality by identifying the critical bugs.

Projects

Peer-to-Peer Decentralized Network | *F#, Akka-Actor model Distributed Systems* | github link

- Used functional programming language to implement a P2P network based on Chord.
- Used F#, Akka-Actor model Chord network

Gossip Protocol Implementation | *F#, Akka-Actor model, Distributed Systems* | github link

- Implemented Gossip protocol for faster convergence of message in a network.
- Designed and tested on linear, 2d and 3d topologies.
- Used F#, Gossip protocol

Signal Retrieval | *Python, Machine Learning* | github link

- Used ICA to decompose a multivariate signal into independent non-Gaussian signals.
- Used numpy, pandas, matplotlib, scikit-learn.
- Used F#, Gossip protocol

Technical Skills

Languages: Java, Python, C/C++, TypeScript, SQL, JavaScript, HTML/CSS, F#
Frameworks: Spring Framework 5, Angular
Developer Tools: Git, Docker, Kubernates, AWS, Kafka
Libraries: pandas, NumPy, Matplotlib, React
Software development process: Agile, Scrum
Datebases:SQL, MySQL, Postgre SQL
Architecture Styles: REST, API, Microservies