SHUBHAM ARORA

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EDUCATION

Boston University   Boston, MA
MS in Computer Engineering, GPA: 3.68 / 4   Sep. 2019 - Dec. 2020
Courses: Distributed Systems, Cloud Computing, Parallel Programming

Netaji Subhas Institute Of Technology, University Of Delhi   Delhi, IND
BE in Computer Engineering, GPA: 70.8%   Aug. 2013 - Jun. 2017
Courses: Data Structures and Algorithms, Operating Systems

EXPERIENCE

Boston University   Boston, MA
Research Assistant   May 2020 - Present

· IBLT based synchronization - Implemented *Inverted Bloom Lookup table*, a novel data structure for efficient data synchronization among peers in a distributed system, in C++
· Developed the testing infrastructure to compare and benchmark multiple data synchronization algorithms, under varying workloads

Arcesium India Pvt.Ltd.   Hyderabad, IND
Software Engineer   July 2017 – July 2019

· Designed and developed business features for D.E. Shaw's expense management and reporting system
· Developed and maintained web services to create and manage business reports, using Java and a SQL server database
· Created rich User Interfaces in ReactJS and JavaScript. Developed custom form processing and grid editing features
· Improved client productivity by reducing process turnaround time from 10 mins to 30 sec
· Improved application stability by following Test Driven Development, increased code coverage from 10% to 50% through unit and integration tests

PROJECTS

Boston University   Boston, MA
Distributed transactions   Mar. 2019 – May 2020
· Design and implemented a transaction library on *Ray*, a general-purpose cluster computing framework
· Implemented and evaluated Distributed Sagas, an extension of the Saga pattern for coordinating transactions on microservices, using Python
· Used the actor framework as a model for concurrent computation
· Implemented a sample trip booking application in Python to measure performance

RAFT consensus protocol   Feb. 2019 – May 2020
· Developed and tested core procedures of the RAFT consensus protocol in GoLang
· Implemented procedures for leader election, append entries and log replication

Data Visualization website   Oct. 2019 – Jan. 2020
· Provided meaningful data visualizations of the demographic data of high school AP - CS students in Massachusetts
· Led the development of a single page web application in vanilla ReactJS.
· Created custom UI components and leveraged open source charting libraries
· Website is live at https://digitalequityma.com

Netaji Subhas Institute Of Technology, University Of Delhi   Delhi, IND
Innovision Website   Jan 2016 – Mar 2016
· Led a team to develop the website for the 2016 technical fest of NSIT using Express JS, MongoDB
· Deployed the website to Digital Ocean. Received 65000+ page views and 5000+ registrations
· Created workflows for user registrations, social login, event managements and email campaigns

TECHNICAL STRENGTHS

Languages & Frameworks	C++, Java, GoLang, Javascript, ReactJS, Python, Spring
Other	Linux, Git, Bash, Agile, TDD