Abhishek Bhave

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SKILLS

Programming Languages: Python, C/C++, Java, JavaScript, Typescript, HTML/CSS, SQL
Frameworks: Node.js, Express.js, React,js, Mongoose, Django, SystemC, Boost, STL, Hadoop
Database & Cloud: MS SQL Server, SQLite, MongoDB, AWS, Azure, Docker, Git, Linux, Jenkins, Docker, Kubernetes

WORK EXPERIENCE

Software Engineer 3, Juniper Networks Inc, Sunnyvale, CA   May 2020 - Present
- Designed and developed high-performance SystemC software simulators for the BX and KX networking chips. Engineered a multi-threaded pure C++ simulator for the XT chip, enhancing its efficiency and performance.
- Optimized the speed of the vBX simulator speed from 20 packets per second (pps) to 2300 pps, marking a 115x improvement by profiling code and resolving bottlenecks and optimizing algorithms and code.
- Spearheaded the creation of Python and C++/CMake based build system for the simulators.
- Developed a comprehensive testing and regression framework to validate simulator accuracy and reliability.
- Led efforts to build and optimize the release pipeline for the simulator, enhancing the deployment process.

Software Engineer, LeanTaas, San Jose, CA   Feb 2020 - April 2020
- Worked as a Software Engineer in the Data Engineering team on the iQueue for Infusion product.
- Developed backend APIs and services in Java and Scala to efficiently represent hierarchical relationships, enhancing data management capabilities.
- Implemented Python data processing scripts to serve healthcare customers across the United States, resulting in streamlined data operations and improved workflow efficiency.

Software Engineer Intern, Sodexo, Buffalo, NY   Jun 2019 - Dec 2019
- Data archival enhancement to existing .NET core application thereby reducing query time by 40%.
- Automated Azure deployment process using ARM templates resulting in 300% reduction in deployment times.

PROJECTS

Simple Dynamo Database | *GitHub*
- Engineered a distributed key-value storage system for Android using Java, which guarantees high availability and linearizability. The system leveraged consistent hashing and chain replication techniques to maintain data consistency, even in the face of failures.
- Effectively handled concurrent read and writes to the system even under failures while ensuring that every read returns the most recent write.

Options Trade Calculator and Logging Tool | *GitHub*
- MERN stack application that enables users to manage and analyze options trades. Provides a user-friendly and intuituve UI with React.js for recording trades, calculates returns analyzes historical option transactions.
- Designed a scalable API middleware with error handling and input validation using Node.js, Express.js, MongoDB.
- Deployed the system on AWS with an Auto scaled EC2 cluster and Load Balancer, following Agile principles and maintaining Scrum artifacts.

Image-to-Image Translation with Conditional Adversarial Networks | *GitHub*
- Developed a conditional adversarial network system employing Generative Adversarial Networks (GANs) and their variants, such as Conditional Adversarial Networks (cGANs).
- The goal was to create a model capable of image-to-image translation by learning a structured loss function and simultaneously training a generative model to minimize the loss.
- Implemented the project using Python and deep learning libraries such as TensorFlow and Keras.

Dynamic JavaScript Shopping Cart | *GitHub* | *Website*
- Created a user friendly Shopping Cart Application that enables seamless addition and deletion of items from the cart, providing real-time updates to the total amount.
- Leveraged core technologies such as JavaScript, HTML, CSS, and DOM manipulation to ensure a responsive site.

EDUCATION

Master of Science, Computer Science, University at Buffalo   Aug 2018 - Feb 2020
Bachelor of Engineering, Information Technology, University of Mumbai   Aug 2014 - Jun 2018