

VARNIT SAH

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EDUCATION

- MS in Computer Science, University of Southern California, Los Angeles, CA-90007 Aug 2015 - May 2017
- BTech in Computer Engineering, Charotar University of Science and Technology, India Aug 2011 - May 2015

SKILLS & ABILITIES

Languages : C, Java, C#, HTML, CSS, Javascript, Node.js
Frameworks : Bootstrap, AngularJS 1.5, Express, Mocha, Ruby on Rails
Libraries : React, JQuery, Immutable.js
Tools & Tech : Git, Hadoop, Jenkins, Docker, SOLR, Lucene, gulp.js, Linux, AWS, Google Cloud, Heroku

EXPERIENCE

Student Software Developer

Apr 2016 - May 2017

Information Technology Services, University of Southern California

- Worked as a part of a scrum team to develop in house applications for USC utilizing a MySQL, Express, AngularJS, Node.js technology stack.
- Automation of post-development tasks using Gulp.js, deployment using Docker and automation of build pipeline using Jenkins.
- USC Account Translation Tool :**
 - Designed, developed and maintained an online service for viewing and editing financial records.
 - Evaluating load time of records after initial request, yielded an average load time of 250ms
- ITS Integration Dashboard :**
 - Designed and developed a dashboard application that presents JSON data in a graphical interface.
 - Reviewed code and identified redundant POST calls leading to a 60% reduction in unnecessary data fetches.

Software Development Intern

Jan 2015 – May 2015

e-Infochips Training and Research Academy, India

- Developed a Text Prediction and Spell Correction Library in C# for use with the Devanagari script.
- Evaluated the performance of Trie and Ternary Tree for use with low memory devices.
- Improved the performance of spell correction for the Devanagari script by modifying the Damerau-Levenshtein distance algorithm. Modified algorithm resulted in better spell checks by 10-15% in relevant cases.

PROJECTS

Autocompletion & Spellcheck tool using SOLR:

- Developed an Angular-Node application which queries a snapshot of a news website to receive the most relevant results from the SOLR platform. HTTP calls to SOLR are made via a node.js server.
- Compared performance of Lucene vs Pagerank algorithms. Lucene outperforms pagerank considerably.

Voting application:

- An application made with a Test Driven Development approach for organizing live votes using React, Redux, Immutable.js and Sockets.
- Users vote from two choices and the moderator can keep track of the votes in real time.

Twitter clone

- A Ruby on Rails web application which emulates the tweet functionality of twitter. Deployed on Heroku
- Users can signup/login, post short messages. Messages are stored in a SQLite database managed by the Rails framework..

Unix Kernel Development

- Collaborated with four members to implement Processes and Threads, Virtual File System and Virtual Memory components of the Weenix Operating System.

Inverted Index Search Using Hadoop

- Developed a search engine for a news website by created an inverted index for it by utilising Apache Hadoop. The map/reduce program executed on a Google Cloud cluster.

Quotes Storage

- A CRUD application built with Express and MongoDB which allows the user to store quotes of a character.

CERTIFICATIONS

F105-3539 Microsoft Technology Associate - Database Fundamentals