### NAGA MANJULA KOUTHA

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#### **EDUCATION**

**MS, Computer Science**, CSU East Bay, Hayward, CA (3.66/4.0 GPA) 01/2016 - 03/2018

**B.Tech, Electronics & Communication Engineering**, Jawaharlal Nehru Tech. University, India 9/2007 – 5/2011

<u>Relevant Courses</u>: Operating Systems Design / Distributed Systems / Website Development / Data Structures & Algorithms / Analysis of Algorithms / Advanced WWW Software Development / Network Security /

### TECHNICAL SKILLS

**Languages:** JavaScript , React.js, Node.js, PHP, Java, C++

**Testing**: Mocha, Chai

IDE: Eclipse, NetBeans, Atom, Notepad++, SQL Developer

Database: MySql, SQL/PLSQL, Mongo DB, Neo4j

**Operating Systems:** Ubuntu, Windows OS 7-8, Linux

and Mac OSX

**Frameworks:** jQuery, Cordova, D3.js, React.js

Markup Languages: HTML5, XML

**Tools:** GIT, Agile, Scrum, Espresso, TDD, SQLyog, MYSQL workbench, Chrome debugger, Charles, ADB Tools

& Active MQ browser

### STUDENT WORK & VOLUNTEER EXPERIENCE

**Teaching Assistant**, Operating Systems Course, CSU East Bay, Hayward, CA 01/2018 – 03/2018

**Programming Instructor Volunteer**, Spark Computer Science Program, CSU East Bay, Hayward, CA 02/2017

• Taught 20 elementary school students Scratch to code games

**Teacher,** Indian Springs School, Andhra Pradesh, India 06/2011-12/2011

PROJECTS (see at: https://github.com/ManjulaNaga\_)

# **Project: Profile Viewer**

Developed a website to represent my portfolio.

• Deployed to cloud AWS EC2.

Tools & Technologies: React JS, JavaScript, HTML5, CSS, jQuery, JSON, AWS EC2

# Project: Full Stack Application: "My Hikes"

- Developed a full stack application to track and store user hikes in the cloud.
  - Used Cordova to develop hybrid mobile application for Android.
- Caches path information of the hike on the device and displays it using Google Maps.
- Completed hike information is synced with the server after a hike is completed.
  - Used ActiveMQ for offline processing of hike information.
- The server was deployed on AWS Elastic Beanstalk service, which automatically handles the deployment, from capacity provisioning, load balancing, auto-scaling to application health monitoring.

<u>Tools & Technologies:</u> Java, Servlets, Active MQ, MYSQL, Cordova, HTML5, CSS, JavaScript, AJAX, jQuery, SQLyog, MYSQL workbench, AWS Elastic Bean, JMS, Chrome debugger, Charles, ADB Tools & Active MQ browser

### **Project: My Hikes API**

• Migrated the MyHikes server side functionality to a REST API using Node JS. The API has following functionalities: store hiker details, get hiker details, store hike information, retrieve hike information, retrieve all hikes of a hiker, delete a hiker account.

Tools & Technologies: Node.js, Express.js, MySQL, JSON

## **Project: To do List APP and API**

- Developed a cloud based Todo application that stores Todo items per account in the cloud.
- Used node MVC architecture on the server side and JavaScript, HTML5, CSS.

<u>Tools & Technologies</u>: Node.js, React.js, Express.js, Mongo DB, POSTMAN, Mongoose.js, JavaScript, Mocha, Chai

# **Project: Academic Scheduler APP**

• Developed a single page React Js web application to track student's course work. It displays all courses taken, all completed projects and a todo list. A student can add new project/course, delete a project/course and retrieve the todo list from external API.

Tools & Technologies: React.js, jQuery, Mongo DB, Node.js

# **Project: Secure Chatroom:**

- Developed a multi threaded secure chatroom application that provides secure conversations with integrity, authenticity, and confidentiality
- The chat server is multi threaded and is capable of handling multiple clients at a time.
- Used Java keystore to generate key pairs, client/server certificate requests and to store certificate chains.
  - Used OpenSSL to generate CA certificate and to sign certificate requests.
- Used Elliptic-curve Diffie Hellman Key Exchange for generating shared secret key.
  - Chat messages are Encrypted / Decrypted using AES algorithm.

Tools & Technologies: Java, JCA, Java Keytool, OpenSSL, Client-Server Model

Project: Student Learning Portal -"Vidhyardhi"

• Developed a student learning portal which provides students the ability to access and read different course materials online.

<u>Tools & Technologies</u>: JavaScript, HTML5, CSS, Bootstrap, jQuery, PHP, AJAX and MYSQL.

### **Project: Multi Producer Consumer problem**

• Developed code to handle deadlock and synchronous problems while working on shared resource.

Tools & Technologies: semaphores, mutex, pthreads, C++

### **WORKING EXPERIENCE**

**Intern,** Stealth Startup, Plug and Play, Sunnyvale, CA. 01/2015- 06/2015

Team was responsible for building unified monitoring system that provides integrated platform to monitor and analysis the applications, databases, network and so on.

- Build REST based web services in Java.
- Worked on neo4j as persistence layer using OGM(Object Graph

# Mapping)

- Created graph data base using D3.js
- Processed JSON based configuration
- Used GIT as version control system
- Worked in Agile development environment for planning, estimation and development.

**Systems Engineer**, Tata Consultancy Services, Bangalore, India 01/2012 – 05/2014

• Worked as Systems Engineer. Was primarily responsible for fixing bugs and data fixes for one of the top five consumer electronics companies in Cupertino, CA.

- Maintained several applications developed in Java, Oracle, and PeopleSoft.
- Responsible for code and data migration. Activities included: shutting down servers, deploying code, updating data changes, bringing apps and servers up, and monitoring performance.
- Worked on Unix commands and shell scripts for migration activities and error or problem identification in logs.
- Mentored 4 new members to better understand the functionality thus increasing overall productivity