**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

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

# TECHNICAL SKILLS

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

Testing: Mocha, Chai

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

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

**Operating Systems:** Ubantu, 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: 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.

Tools &Technologies: 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, Expres**s.**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.

# Tools &Technologies: 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.

Tools &Technologies: 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