### GOPI KRISHNAN NARASIMHA GUPTHA

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### **EDUCATION:**

Graduate:

University of Illinois Chicago, Illinois

Master of Science in Computer Science

Fall 2017- Present

Key Courses: Artificial Intelligence -1, Algorithms and Design, Object oriented programming and language, Introduction to machine learning, Software development for mobile applications and Database Management System

Under-Graduate:

Dayananda Sagar College of Engineering

Bangalore, India

Bachelor of Engineering in Telecommunication

Jan 2015

#### **SKILLS:**

Languages: C, C++, Java, JavaScript, jQuery, HTML5, CSS, Python, COBOL, PL/I, JCL, SQL

Database: IBM DB2, MongoDB

Utilities: Microsoft Office suite, IBM Rational development tools (RDz, RQM, RDNG, RTC)

IDE: Eclipse, IntelliJ, Jupyter Notebook, Anaconda, PyCharm, Android Studio

Version Control Tools: Endeavor, GitHub, Bitbucket Operating System: Microsoft Windows, Linux

### **ACADEMIC PROJECTS:**

## **Current:**

Title: Ride sharing System, Language: Python

*Description:* Developing a ride sharing algorithm which enables real time taxi-ride sharing that is efficient in improving the savings and distance saved, also reducing time with respect to different pool size. Additionally, regulating the algorithm on allocating passengers to a taxi cab in less than a minute.

Title: Website development for an accounting firm, Language: HTML, CSS, JavaScript, jQuery, MongoDB

*Description:* In course of designing and developing a website for an accounting firm in India, which enables a customer of the firm to monitor the work progressed by the firm on his profile in addition to log in and sign up functionalities.

## **Completed:**

<u>Title</u>: Code generator application (Compiler Design), Language: Java

Nov 2017

Description: This application generates syntactically accurate but semantically meaningless java class files. Java grammar maps are generated from a java BNF grammar text file. Using the generated grammar maps, a string is generated which contains random java stochastic grammar. This random string is then parsed using Java Parser to implement java syntax, based on Java language specification. Once the syntax rules are implemented on the string, it is then stored as a java class file. This file can be compiled successfully without any errors, however, does not make a logically valid file.

<u>Title</u>: Mutation Testing application, Language: Java

Oct 2017

*Description*: This application creates a parse tree using AST Parser. Furthermore, utilizes the generated parse tree to produce mutations on java class files. The mutations are tested on existing test cases, and the test results are monitored against the differences with original code test results.

### **WORK EXPERIENCE:**

# Danske IT and Support Services India Private Limited

Bangalore, India

### Associate Software Engineer

Jul2015-Aug2017

<u>Project</u>: Development of refinancing functionality on mobile for RealKredit Danmark Customers (A mortgage loan division of Danske Bank) which was earlier available only to bank advisors.

Created Functional Designs from the Business Requirement Documents. Designed SOAP based Web Services on Mainframe systems. Developed associated wrapper modules and business functionality modules using Service Oriented Architecture and COBOL as main programming language. In addition, analyzed, created and designed new JCL Job's and procs for generating monthly online documents to customers.

**Proof of Concept:** SOAP based Web Services

Feb2016-May2016

Scope: Took initiative in developing Web services on mainframes for the first time within the team as a sole developer. Overcame various challenges on data type mismatches, module calls and environment setup since there was very limited documentation and knowledge on web services at organization level. The proof of Concept was substantial that, it was implemented in the refinancing project and was deployed in production successfully with minimal issues. Further on, created documents on webservices and shared the knowledge within the team and at organizational level which led to recognition from the Subject Matter experts and Architects.