NARENDRA KUMAR SAMPATH KUMAR

1701 E 8th Street, Apt 219, Tempe, AZ – 85281 | Ph: (480)410-9823 | nsampat1@asu.edu
LinkedIn: https://www.linkedin.com/in/narendrakumar92 | GitHub: https://github.com/narenfalcao

EDUCATION

Master of Computer Science   **Fall' 16 – Spring'18**
Arizona State University   **CGPA: 3.72**
Relevant Coursework: Distributed Database Systems, Foundations of Algorithm, Machine Learning, Artificial Intelligence, Mobile Computing

Bachelor of Technology in Information Technology   **May' 2014**
College of Engineering, Guindy – Anna University, Chennai   **CGPA: 8.09/10**
Relevant Coursework: Distributed Systems, Operating Systems, Database Management Systems, Data structures & Algorithm, Graph Theory.

TECHNICAL SKILLS

Interests: Object Oriented Design, Product & Workflow Design, Problem Solving, Algorithmic Analysis, Scalable Distributed Systems & Architecture.
Languages (Proficient): Java, Python, C, C++.   **Familiar:** JavaScript, Go, Scala, PHP, Matlab.
Data/Database: SQL, Hadoop, Spark, Kafka, PostgreSQL, MSSQL, MYSQL, Redis, Neo4j, MongoDB. **Version control**: Git, Clearcase
Frameworks/Libraries: Spring MVC, Spring Boot, Hibernate, JAX-RS, JAX-WS, Maven, RESTful APIs, JQuery, Node.js, AWS EC2, Lambda, Docker.

WORK EXPERIENCE

Systems Imagination Inc, Lead Software Engineer Intern   **June 2017 – Present**

- Created a client-server multiprocessing framework that executes bulk Cypher queries to find the co-relation between nodes in a hypergraph. *(Neo4j driver, Python)*
- Lead a team of 4 Engineering interns to create cluster in Hadoop environment and scale the import feature of Neo4J across CPUs
- Used Marlin library to perform dense and sparse matrix chain multiplication distributed on a Spark cluster consisting of 5 nodes.
- Implemented variations of A* (A star) search algorithm to find the efficient pathway in a graph formed using gene-disease data. *(Java)*

Oracle, Applications Engineer   **June 2014 –June 2016**

- Created a feature, enabling multiple call creation, sign and submit in Pharma Application, Siebel CRM. Responsibilities include Workflow design, Backend business services and UI development. Released as part of IP2015 & demoed at Oracle OpenWorld'15. *(C++, JavaScript)*
- Integration of Gantt Chart to Pharma Application, Siebel CRM. Created new methods to create calls through calendar chart *(C++)*
- Created methods for Keyword Driven Selenium Framework for Automation, Pharma Application and provided as Jar *(Java)*
- Worked on BIP11G, created service methods to generate Business Intelligence Reports from Pharma Application *(Java, BIP)*
- Optimized In-Memory DB and SQLite queries for Pharma Application, Siebel CRM. The performance was improved 2.5X with optimization.
- Created SOAP based Business service methods in Signature Canvas Module to convert Image from Base64 to JSON and store it to DB. *(C++)*

PROJECTS   *More Information on GitHub*

Distributed GeoSpatial Computation   *(JAVA, Apache Spark, Hadoop, Map Reduce)*

- We perform spatial operations on the dataset distributed over HDFS and Spark cluster consisting of a master and two worker nodes
- We use New York City taxi dataset to create a 3D space-time cube, calculated the Hot Spots using Getis-ord statistic.

An Interoperable framework for API Heterogeneity in Cloud Storage   *(JAVA, JAX-RS, REDIS, ANDROID)*

- The project provides an interoperable framework between cloud vendors addressing the issues of API Heterogeneity
- Adapting to various cloud APIs like Google Drive and Dropbox to perform CRUD operations, built along with REDIS cache management. Created RESTful web services and API calls are made through Android.

Distributed Database and Parallel Processing   *(PYTHON, POSTGRES)*

- We fragment the dataset using Range partition and Round Robin partition to increase the query efficiency and degree of parallelism.
- Implemented Range queries, Point queries, Parallel sort & Parallel Joins using threads and compared their performance

Information Dissemination on a large graph using Yelp dataset   *(SQLITE, PYTHON, SKLEARN, GENSIM, NEO4J)*

- Increase the information spread of a new business by adding edges to the likeminded influential users in the graph.
- Implemented topic sensitive Pagerank and K-means clustered PageRank, resulted in 2X Information spread in a simulated environment.

Online Grievance Redressal System   *(JAVA SPRING MVC, JSP, HIBERNATE)*

- An e-complaint web portal created with five different actors (UML) interaction, & the system is automated to validate the complaints.
- A forum based platform is created for discussion, allowing NGOs to help redress the issue. Project was ranked top 100 in IBM's TGMC.

GeeknFreak – An Information Oriented Website   *(HTML, CSS, PHP, ANGULAR, MYSQL)*

- Geeknfreak is a website designed to provide technical information. Created a CMS tool to post the articles using PHP and MySQL.

ACHIEVEMENTS

- Competitive programming Hackerrank, won bronze medal in Worldwide Codesprint and University Code Sprint   **Link: Hackerrank**
- Ranked top 3000 globally (99th percentile) in Leetcode and 92nd percentile in Hackerrank (Competitions)   **Link: Leetcode**