VIBHAV GUPTA

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EXPERIENCE

Software Engineer (Freelance)   Jul '19 – Nov '19
- Collect IP data from different sources (Registry, Traceroute) and understand synthesis process to assign locations.
- Develop Label Mapper to assign labels to hostnames which can be traced to city level.

Software Engineer, Integra Technologies, New York, NY   Nov '16 – Dec '18
- Gather company data from automotive and financial industry, perform database transactions handling data.
- Scale infrastructure, diversify resources enhancing portability and develop backend components.
- Develop application including analysis, designing and coding using Java. Made application robust and concurrent using fine grain locking techniques.
- Develop new warehouse, create data models and optimize database. Enhanced database performance by 15%.

Software Engineer (Intern), AG Technologies, Dallas, TX   Oct '15 – Apr '16
- Develop application utilizing MVC framework using Java.
- Produce web services that include REST.

TECHNICAL SKILLS

Programming: C/C++, Java, C#, Python, Matlab, JavaScript, HTML, XML
Software/Tools: Apache (Lucene, Solr, Tomcat), Eclipse, Oracle SQL Developer, AWS
Databases: SQL Server, MySQL, Oracle Database, NoSQL, MongoDB
Operating System: Linux, OSX

ACADEMIC PROJECTS

Relational Query Engine, *Database Systems*
- Implemented SQL query evaluator with support for Select, Project, Join, Union, and Aggregate operations.
- Evaluated Select statements on provided data, and produced output in a standardized form.
- Used JSQL Parser to convert human-readable string into structured representation (query).

Wikipedia Indexer, *Information Retrieval*
- Performed parsing on Wikipedia corpus using XML and Wikipedia parsing techniques.
- Performed Tokenization for Stop-Word removal, corrections including Whitespace, Camel Case, Hyphen, Dielectrics, Punctuation, Stemmer, Accent and more.
- Programmed to index document in Map data structure.

Multisource Search System, *Information Retrieval*
- Implemented "location based" multi-source search system using three cores in Solr.
- Mapped about 400 countries and cities on World Political Map to indicate location of place on map when searched.
- Implemented features including Auto - Suggestion and Spell Correction.

Concurrency Model, *Programming Languages*
- Implemented concurrency technique including Locks, Synchronization, STM, Futures and Message Passing.
- Analyzed compiler optimization and Memory Model impact on Synchronization.

EDUCATION

Master of Science in Computer Science, (2015)**,** University at Buffalo, Buffalo, NY
➢ **GPA: 3.1**, with courses in Algorithm Design, Databases, Data Mining, Information Retrieval, Java Concurrency & Memory Model, Computer Security
➢ **Activities:** Vice President, Computer Science Graduate Student Association; Secretary, Creekside and Flickinger Village Council Committee

Bachelor of Technology in Computer Science, (2013), Amity Education Group, Noida, India
➢ **Activities:** Organized Linux Workshop in association with IIT Bombay; Coordinator, Organizing Committee of Annual Cultural and Technical Fest 2011; Amity Linux Assistance Sapience (ALiAS); Amity Physics Club   **GPA: 3.84**

AWARDS

- 10th place in Bloomberg Hackathon.
- Gold Merit in International Informatics Olympiad.
- Top 10% of participants in International Mathematics Olympiad.