Gyanasekaran Radhakrishnan

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EDUCATION

MS, Computer Science
Clemson University, Clemson, SC. May 2014 (expected).

Bachelor of Engineering, Computer Science and Engineering
Anna University, India. June 2007.

TECHNICAL SKILLS

Languages: Java, Python, C, C++.
Mobile Development: Android.
Web & Back-end Development: J2EE, Web Services, Spring, Struts, Javascript.
RDBMS: MySQL, Oracle, PostgreSQL.
Big Data, NoSQL: Apache Hadoop, Lucene, Solr, RabbitMQ, MongoDB, Storm, Redis.
Other Tools: Maven, SVN, Git.
Operating Systems: Unix/Linux, Windows, MacOS.

INDUSTRY EXPERIENCE

Technical Intern PhD Summer 2013
EBay Inc, San Jose, CA

- Built a tag mining system using topic mining algorithms.
- Improved quality of tags by 99.1% as compared with raw *ngrams*.
- *Tools Used: Apache Hadoop, MongoDB, Apache Lucene and Apache Solr.*

Application Engineer 2010-2011
Oracle, Bangalore, India

- Extended Oracle Fusion CRM Sales functionality to mobile.
- Implemented location/context based features specific to mobile sales.

Android Developer 2009-2010
MySpace (representing Aditi Technologies)

- Developed the Official MySpace Android application - one of the first 14 apps to hit Android market.
- Improved performance of individual pages and overall application using AIDL remote services.
- Developed Oauth security layer that is used to form requests from the Android application.
- Implemented and consumed Long Polling in the MySpace mobile application for alerts.

Senior Development Engineer 2007-2010 & 2011
Aditi Technologies, Bangalore, India.

- Responsible for design and development of web backend(J2EE) and mobile(Android) applications.
- Incorporated clustering and load balancing algorithms for content management systems.
- Responsible for performance tuning in production web applications that scaled the application to support 10,000 concurrent users - a 400% increase.

ACADEMIC PROJECTS

Data Mining C++

- Implemented a music recommender system using Collaborative Filtering for Yahoo music dataset.

- Improved running time efficiency of SVD feature toolkit but performing user grouping in the dataset prior to matrix factorization.

Object-Oriented Game Design C++
- Designed and developed KReversi/Othello - a 2D board game.
- Implemented greedy and divide-and-conquer algorithms for AI.
- Tools: Valgrind.

Compiler Design Python
- Designed and developed a compiler from scratch for a basic imperative language.
- The grammar uses a weak precedence parser.

RESEARCH

- Conducted research in data management of sensor data in structured(Relational), semi-structured(Semantically-annotated) and unstructured(Raw) formats.
- Enabled real-time processing of sensor observation data and sensor diagnostics data using semantic web and linked data technologies such as SPARQL, C-SPARQL and Apache Jena with focus on scalability.
- *Tools/technologies: RabbitMQ for data transport, Redis for caching, MongoDB for raw data archiving and Storm for enabling multi-tenancy.*

ACADEMIC EXPERIENCE

Graduate Research Assistant Intelligent River® Project
- Working on distributed, scalable solutions for real- time monitoring, analysis and management of water resources using Semantic Web and Linked Data principles.

Graduate Research Assistant Exascale Filesystem Project
- Conducted research on Digital Rights Management(DRM) for security in parallel and distributed filesystems. Specific research was done pertaining to Authentication and Authorization in distributed filesystems using OASIS standards.

Graduate Teaching Assistant Fall 2011
- Taught C programming lab sessions for multiple sections of undergraduates.

AWARDS & ACHIEVEMENTS

- Finalist - top 8 out of 109 teams in *AngelHack Silicon Valley* , Summer 2013.
  - Built a drone using ardupilot and a created a drone data management system for tracking drones.
- Won *SPARC-EDGE Hackathon* at Charleston, SC, August 2011.
  - Won joint first prize out of 30+ teams by building an Android app called ParkingPal that uses computer vision to help park and find parked cars.
- Awarded *Research and Teaching Assistantship* by School of Computing, Clemson University.