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AZHAKU SAKTHI VEL M

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EDUCATION

M.S., Computer Science Arizona State University GPA: 3.67/4 **Jan 2016 – Dec 2017**
B.Tech., Computer Engineering IIITD&M, Chennai, India GPA: 8.15/10 **Aug 2011 – May 2015**

Relevant Courses

- Distributed Database Systems, Database Management System Implementation, Statistical Machine Learning, Cloud Computing, Software Design, Foundations of Algorithms, Data Mining, Artificial Intelligence

TECHNICAL SKILLS

Programming Languages:	**Proficient**: Java/Java EE, Python
	Prior Exp: C++, MATLAB, XML, JavaScript, JSP, HTML, CSS, Scala
Distributed/Big Data Technologies:	Spark, MapReduce, Hadoop, Pig
Cloud Services:	AWS, Google Cloud Platform
Databases:	MongoDB, MySQL, PostgreSQL
OS, Frameworks & Tools:	Linux/Windows, SPRING, Kafka, Zookeeper, JUnit, Hibernate, Git, Maven, Eclipse

EMPLOYMENT

Software Intern (Operations Team) **CYR3CON, Phoenix** **May 2017 - Present**

Technologies Used: **Python, Hadoop, Map-Reduce, Spark, MongoDB, PostgreSQL, PyCharm, AWS, Linux**

- Delivered results for 40% improvement in data access speed by migrating infrastructure from Postgres to MongoDB.
- Re-designed MongoDB schema by reducing collection & field counts leading to 5% quicker response to REST API endpoints.
- Increased efficiency of Python functionalities by 50% by converting to Map-Reduce versions to work on Hadoop HDFS data.
- Involved in incremental development with cross-functional teams & deployment to production environment using Git repos.
- Decreased Postgres data transfer time from 40 mins to 7.5 mins through Spark and multithreaded Python implementations.
- Initiated the decision to use Mongo-Engine as object data mapper which now handles 50 GB of data on daily basis.

Software Engineer **Infoview Technologies Pvt Ltd., India** **Jul 2015 - Dec 2015**

Technologies Used: **Java, AWS, Rest/Soap API, SQL, Agile, Hadoop, TDD, Eclipse, Windows**

- Reduced SLOC by 1.5k lines by improving object-oriented designs of Java Spring MVC controllers and business logic layers.
- Adopted AGILE Scrum & TDD methodologies to cut short development costs and delivery time by about 15%.
- Utilized Java, JDBC, JSON, Tomcat, Hibernate, XML, SPRING, and JavaScript for development of Restful Web services.
- Developed SOAP/REST based APIs using JAX-WS, JAX-RS for logging 0.5 GB of error messages per day to internal GUI.
- Extended the Grid Populator Tool to support 35% larger files using Hadoop ecosystem on AWS resulting in better usability.
- Organized team of 7 members to analyze issues of cleaning, de-duplication & cron jobs on 20 GB data pipeline.

Software Engineering Intern **Vasan Software Solutions Pvt Ltd., India** **Jan 2014 – Nov 2014**

Technologies Used: **Java, Python, NLTK, Scikit-learn, Flask, AWS, JUnit, Linux**

- Collaborated with 5 others to harness scikit-learn and NLTK to develop a RESUME classifier resulting in 85.3% accuracy.
- Improved latency time of web services by 5 seconds by restructuring design of Python Flask based RESTful web services.
- Created 3-tier auto-scaling JAVA web service on AWS using EC2, S3 & SQS to dynamically improve concurrency by 10 times.
- Built bash scripts and modified test suites for Java programs using JUnit framework to increase code coverage to 90%.

PROJECT EXPERIENCE

Foodie Friend (Python, Google App Engine) **Jan 2017 – May 2017**

- Innovated an automatic scaling Python app that translates menu cards into English, displays pictures & ingredients of dishes and suggests must-try local foods using Google App Engine's Pub/Sub, Compute Engine, Google APIs & BigQuery.

Lyrics based song recommender system (Python, SVM) **Jan 2017 – May 2017**

- Developed a Multinomial, SVM based song classifier & recommender system which performed with 81.6% accuracy.
- Generated 1500 full English lyrics of mood based songs from lyricwikia as training data, harnessing Python web parsers.

Hot Spot Analysis (Java, Hadoop, Map-Reduce, Spark) **Aug 2016 – Dec 2016**

- Accomplished identification of top 50 statistically significant hot spots in Yellow Cab trip data of 1.8 GB by implementing Java Map-Reduce programs in Hadoop & Spark in a team of 5 which led to 100% accuracy in 2.5 seconds.

SQL Query Optimization (Java, Eclipse, SQL) **Jan 2016 – May 2016**

- Proposed optimization for quicker join operation of join conditions having two predicates with inequality operators.

Runners up in ACM ICPC Multi Provincial Coding Contest held at Chennai, India. **October 2013**