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VIGNESH RAMESH

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EDUCATION

New York University, Tandon School of Engineering, New York, NY. **May'17**
Master of Science, Computer Science **(3.5)**
Coursework: Algorithms, Data Structures, Cloud Computing, Big Data, Distributed System, Database System, Machine Learning.

Anna University, Chennai, India. **Apr'13**
Bachelor of Engineering, Computer Science **(3.7)**

TECHNICAL SKILLS

- **Languages**: Python, Java, C++, JavaScript, Shell
- **Frameworks**: Django, Flask, Spring, Hibernate, Hadoop, AngularJS
- **Databases**: NoSQL (Dynamo, Mongo), MySQL, PostgreSQL
- **Tools**: Spark, Kafka, Node.js, D3.js, jQuery, Jenkins, AWS, Git

EXPERIENCE

Software Engineer Intern **Radiator Labs, New York, NY** **Sep'15 - Aug'16**
- Involved in building a distributed backend system to process and reorganize real-time data stream extracted from radiators and its statistical and graphical representation, thus serving users with personalized dashboard application.
- Designed and implemented API logic for operational services that automated the business workflow, increasing productivity.
- Implemented Multi-layer perceptron, SVM regression algorithms and gradient-based optimization model to predict temperature distribution using Spark, Python and discovered that energy consumption was reduced by 35%.
- Technologies Used: Java, Python, AngularJS, Node.js, D3.js, Kafka, Scikit-learn, Pyspark, AWS- Dynamo, ElasticCache, SNS

Analyst System Developer **Verizon Communication, India** **Sep'13 - Jul'15**
- Developed the base modules of a portfolio application with Clarity PPM along with the creation of multiple API endpoints and monitored the application performance during A/B testing.
- Redesigned Verizon web architecture to increase the efficiency of backend systems to empower analytics, by implementing ETL methods and providing 95% confidence intervals around data quality.
- Built Multi-thread controller that consolidates data from three different portfolios into a single tracking tool for One-Biller VZ Finance.
- Technologies Used: Java, Python, Hadoop, Spring, Hibernate, SQL, AWS, Jenkins, Clarity, JavaScript, D3.js, Git.

Software Engineer Intern **Praudyogiki TechnoLabs, India** **Nov'12 - Jan'13**
- Developed the entire back-end for the merchant-facing side of the website Daddyspocket –which was a one-stop marketplace for small-scale fashion designers– to increase investment and autonomy of merchants.
- Collected and analyzed sensitive data, assembled into the database from multiple sources, then created infographics and text to communicate the daily payouts to merchants. Also involved in refactoring the existing discount system and product categorization.
- Technologies Used: Java, Python, Spring, Hibernate, MySQL, JavaScript, jQuery, Bootstrap.

PROJECTS

Truthy – Bot or Not? **Apr'17**
- Built up the Feature extractor platform to analyze quantitative and qualitative features of over 1TB of Twitter Data by Spark.
- Trained Random Forest, Adaboost, Logistics regression and SVM classification algorithms to predict how likely the account is a Bot.
- Analyze Impact Score, Sentiment Score, Topic Tags of Tweets and plotted six prediction curves and obtained accuracy over 0.92.
- Tools and Technologies: Python- Numpy, pandas, Matplotlib, PySpark, Scikit-learn, SparkMLib, NLP.

Distributed Auction System **Feb'17**
- Built a distributed system to conduct real-time auction that dynamically assigns distinct agent for services (car rental, hotel rental etc.) in a multi-hop communication, keeping the global computation cost as zero.
- Provided independent clusters for each type of service and provide RESTful communication pattern between components.
- Tools and Technologies: Java, Apache Thrift, MongoDB, Zookeeper.

Stroll (crowdsourcing app) **Dec'16**
- Facilitates common people to design authentic walking tours with crowdsourced reviews and photos, which can be used by anyone.
- Applied LRU cache policy for specific locations to enhance efficiency, synchronization and to ensure connectivity among users.
- Filters popular routes in the neighborhood with unique features like user photos, ratings and comments.
- Tools and Technologies: Django, AWS –ElasticSearch, Dynamodb, SNS, SQS, S3, EMR, Kafka, Spark.

Predictive Analysis on Citi Bike Users **May'16**
- Established a whole front-end, web service and back-end framework for client query using service from AWS.
- Analyzed Citi bike users' relationship, behaviors and trends using Hadoop MapReduce and Auto-scaling, in order to facilitate targeted advertising, which helps in market strategy redesign and in driving revenue.
- Features: Google estimate analysis, bike rebalancing, boroughs distribution, effect of subways and seasons.
- Tools and Technologies: Python, Java, MapReduce, Hive, D3, JavaScript.