# PRADEEP RAJA MOHAN

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# **EDUCATION**

Illinois institute of technology – M.S., Information Technology and Management (GPA: 3.8/4.0)

Dec - 2017

▶ Object-Oriented Application Development | Data Analytics | Advance Database Management | Online Social Network Analysis

Anna University, Chennai, India -Bachelor of Technology, Information Technology (GPA: 8.1/10.0)

May - 2015

▶ Data Structures and Algorithms | web Technology | Java Programing | Software Programming Management

### TECHNICAL SKILLS

Programming Languages: JAVA, Python, C#, C,C++, | Big Data: Hadoop, MapReduce, Sqoop, Hive, Pig, Elastic Search, Spark, Tableau | ETL: SSIS, Pentaho, Data Integration & Pipelining | Database Technologies : SQL, Oracle, MySQL, MongoDb | Web : HTML5, JavaScript, CSS3, NODE JS, PHP, J2EE, Spring MVC | Version control: SVN, Git, JIRA | Protocols: REST, SOAP | AWS Services: EC2, Lambda, Dynamo Db, S3, Lucene search | Management: JIRA, Visual studio, Power BI | Methodologies: Agile SCRUM, Water Fall. | Machine Learning: Supervised and Unsupervised Machine Learning Algorithms.

#### **EXPERIENCE**

# Federal Home Loan Bank of Chicago (Chicago, IL)

May 2017 - Aug 2017

IT Application Engineer

- Created and Implemented a system application which involves automation of AWS instance shutdown/restart by lambda function (Python) with a UI designed in MVC framework that lists features for all instances to customize work timings.
- Automated the detection and turning down AWS instances with less utilization, saved about \$250k / Month to the organization.
- Designed a script to write/read Instance tags, which is used as storage fields for instance work timings, instead of a data store.
- Implemented an ETL process in SSIS (SQL, C#) to estimate the customers pledged collateral values by pipelining CUSIPS generation in TPODS, sending them to IHS, Bloomberg, and IDC, lowest price is feed into (STOC) to evaluate collateral.

# **Metarvrse Technologies (Chennai, India)**

Mar 2015 - Dec 2015

**Program Analyst** 

- Created an application service pipeline that superimposes computer generated model on user's view of real world from images.
- Developed API service that delivered backend AR/VR content (computer model) to the front-end streamer (user view) resulting in the development of a 'AR-VR REALITY' module using Octopus REST API.

# **PROJECTS**

github.com/mpradeep1994

#### REAL-TIME DATA PIPELINE TO ANALYZE UBER PRICE SURGE

Aug - 2016

- Built a Real-Time Big Data Processing Pipeline using Kafka for data ingestion and Spark for analyzing surge behavior in price.
- Price surge is calculated by analyzing with historical price data with the real-time price based on location collected by batch processing and visualized using Tableau.
- Data scraping and transformation was done on important fields to extract only the fields of interest using Spark.

### WEB LOG ANALYSIS USING HADOOP AND ITS TOOLS

Jan - 2017

- Created an analysis on Historical web log in Hadoop using MapReduce, SQOOP, HIVE and PIG.
- Imported data into MySQL and HDFS using SQOOP. Insights like most visited URL by each unique IP address, most occurred error code and its reason analysis and summarized the page content using MapReduce, HIVE and PIG.
- Comparative analysis based on the performance of each tool is reported.

### SENTIMENT AND CLUSTER ANALYSIS THROUGH TWITTER API

Nov - 2016

- Developed a python application which identifies the twitter user who uses the current trending hash tags and builds a graph between them. Used Girvan Newman cluster analysis algorithm, clusters among them are identified
- Classified tweets using Machine learning models Support Vector Machine, naive base and logistic regression for predicting sentiment. Computed testing accuracy for each model using Cross validation.

#### SALARY PREDICTION MODEL FOR EMPLOYEES IN CHICAGO

May - 2016

- Implemented a salary prediction model, consuming department and job description to predict salary using Logistics regression, Random Forest and Decision Tree by tuning parameters to accuracy benchmark is performed.
- Data set has been pre-processed and SMOTE algorithm is used to correct data imbalance.

# BANKING CONSOLE WITH CUSTOMER ANALYSIS

Jan - 2016

- Created a banking application using core Java and provided visualization using Java.
- Implementation CRUD functionalities in MVC architecture for modelling user roles and its features.
- Using the Historical Data, Business oriented analytics has been performed to identify ideal customer for providing credit cards.

# **CERTIFICATIONS**

EMC<sup>2</sup> Certified Academic Associate, Cloud Infrastructure and Service. | IBM Certified DB2 Academic Associate. | Windows Server 2008 - Microsoft Certified Solution Associate | ITIL v3 Foundation certificate on IT Service Management. | Oracle Certified Java SE6 Developer | Hadoop certification FITA Services

**PUBLICATION** - Presented and published paper titled "Identifying and Optimizing Data Duplication by Efficient Memory allocation in Repository by Single Instance Storage" in IRAJ. ISBN: 978-93-85465-30-7