linkedin.com/in/ramesh-oswal Phone - (412) 587-3598

Objective – Seeking internship in the field of Data Science specializing in Machine Learning and Big Data Analytics

Education

• Master of Science - Language Technologies Institute (School of Computer Science) Aug'16 - May'18 (Expected)
Carnegie Mellon University, PA (CGPA – 3.3)

Bachelors in Computer Engineering

University of Dune IN Divisions First Class with

Aug'10 - May'14

University of Pune, IN. Division: First Class with Distinction

Relevant Coursework	(*In Progress)
---------------------	----------------

- Design & Analysis of Algorithm
- Advanced Databases

Coding & Algorithm Bootcamp

Machine Learning*

Theory of Computation

Big Data in Practice*

Technical Skills

Proficient Familiar

Core Languages: C, Core Java, Visual Basic, Python, PL/SQL C++, R, Javascript, SAS, MATLAB

Databases: Oracle 9i and 10g, MySQL MS Access

Development/Productivity Tools: Turbo C, Informatica Siperian, Excel, Anaconda, Eclipse, PyCharm Jupyter Notebook

Academic Projects

Project Intern Talencea Inc, Pittsburgh

Oct '16 - Present

- Working with a Pittsburgh based startup founded by LTI Director Dr. Jaime Carbonell.
- 1st phase of project involves working on Big Data from different external sources like client and social media platforms and building Skill Repository.
- 2nd Phase includes building a cognitive model which matches candidates with appropriate job openings.
- Data Munging activities include Data Cleanup, Indexing, Classification, Redundancy Removal & etc.

Image classification to classify proteins into subcellular localization patterns (Carnegie Mellon University) Aug'16 - Dec'16

- Built an Active Learning Framework containing Pool Based Data Access Model, Uncertainty based Querying Strategy and different base learners like SVM, Gaussian NB, KNN and Logistic Regression
- Used SelectKBest algorithm for feature selection.
- Accuracy score of 0.97 was achieved on test data using SVM as base learner.
- Tool Used: Spyder, Python (sklearn, NumPy, matplotlib, SciPy)

Stock Price Prediction using Probabilistic Graphical Model (Carnegie Mellon University)

Aug'16 - Nov'16

- Feature transformed stock prices into a log space for previous 5 days for each stock price of 6 companies (Apple, MS, Hecla, NEM Mining, GM, Ford)
- Created precision matrix using transformed features. Marginalized Precision Matrix for missing data.
- Conclusively was able to predict with minimal error rate the stock prices for Apple by using only 3 days worth of data and stock prices for companies MS, Hecla, NEM.
- Tool Used: Spyder, Python (NumPy, SciPy)

Linear and Forward Stagewise Regression on unknown Dataset (Carnegie Mellon University)

Aug'16 - Nov'16

- Implemented Linear and Forward Stagewise Regression from scratch.
- Implemented Feature transformation like Dummy Coding and Polynomial Feature transformation.
- Cross validated different train and test dataset combination to get optimized weights for each features.
- Tools Used: Jupyter, Python (NumPy, SciPy)

Load Balancer for OpenFlow compliant SDN architecture (Sponsored by GS Labs Pvt. Ltd)

July '13 - Jun '14

- Aimed at enhancing s/w load-balancer in distributing traffic based on server capacity by adding generic flows.
- Based on paper "OpenFlow-based server load balancing gone wild" published in ACM Hot ICE'11 conference...
- R. Oswal et. al. "A Survey of Past, Present and Future of Software Defined Networking"
- Tools Used Mininet with POX controller, OpenVswitch and OpenFlow protocol

Paper Presentation "A Cloud Framework for Parameter Sweeping Data Mining Application"

Jan '13 – Feb '13

- Explained the system framework i.e. its architecture and execution mechanism of how parameter sweeping could be achieved in data mining application
- Finally, concluded by showing a performance evaluation w.r.t clustering & classification algorithms

Professional Experience

Business Operation Associate

ZS Associates Inc.

Sept'14 – June'16

- Master Data Management Role (Data Steward)
 - Automated processes like loading client data and QCing client deliverable and performed Ad-hoc analysis.
 - Automation of Processes to reduce response time for file processing by over 80%
 - Technologies Used Python, MS Excel, VBA, Informatica Siperian, PL/SQL
- Smart Data Quality Management (Quest '15)

24hr – Hackathon (Oct'15)

- Participated & won in Quest'15 organized by ZS Associates which had 44 participating teams.
- Created the architecture of product detailing communication between different modules.
- Implemented an algorithm for "Thomson Tau Method of Outlier detection" to detect outliers
- Technologies Used R, MS Excel, VBA and MS Access

Summer Intern

Softkoash Solutions Pvt. Ltd

May '12 - July '12

- Implemented Microsoft's NerdDinner project as a POC
- Fixed bugs and made changes to proprietary ERP Solution used by customers in production.
- Technologies Used C#, Microsoft's .NET Framework, HTML, CSS and JavaScript

Co-curricular Activities

- Won in Quest '15 (Hackathon at ZS Associates India Office)
- 2nd Best Project PICT's "Impetus & Conceptus'14"
- 2nd Prize in College TechFest Event 'Network Raptors'
- Best Project in Operations Excellence (ZS Associate Global Offices)