

Professional Experience

Oct 2017 **Researcher**, *Tata Research Development and Design Center(TRDDC)*, Pune, India.

Educational Qualifications

- 2017 **M.Tech**, *University of Hyderabad*, Hyderabad, *India*.
CGPA: 9.25/10.0 in Artificial Intelligence
- 2014 **B.Tech**, *Govt. Engineering College, Sreekrishnapuram*, Palakkad, *India*.
CGPA: 8.17/10.0 in Computer Science and Engineering, University of Calicut, Kerala
- 2010 **Intermediate**, *MNKMHS Chittilamcherry*, Palakkad, *India*.
Percentage: 91.5, Conducted by Board of Higher Secondary Education, Kerala
- 2008 **S.S.L.C**, *MNKMHS Chittilamcherry*, Palakkad, *India*.
Percentage: 96.6, Conducted by State Board of Education, Kerala

Academic Projects

- 2016 **Cross domain recommender system**.
M.Tech Project under guidance of Dr. Vineet C. P. Nair (University of Hyderabad)
Description : Transfer Learning to extract knowledge from one or more domain(Source domain) and applies that knowledge to other domain(Target domain). Using the generative models along with collaborative filtering approach for understanding the latent factors.
- 2014 **An Optimized Approach for Lip Reading using Eigen Vector Method**.
B.Tech Project under guidance of Prof. Raseek C (Govt.Engineering College, Palakkad)
Description :To make the machine recognize lip movements which says some meaningful words, is possible means to let the human system interaction in natural way. The main objective of this work is to recognize the spoken English words from the real time video.
- 2013 **Lesk approach in WSD for better e-learning using map-reduce**.
B.Tech Mini Project under guidance of Prof. Raseek C (Govt.Engineering College, Palakkad)
Description : The project primarily aims to develop a framework for semantic analysis of data using map-reduce paradigm and context retrieval. The main objective was implementation of Lesk algorithm to disambiguate the raw content and study the Hadoop framework and execute the work as a standalone operation. *WSD - Word Sense Disambiguation*

– Hyderabad – India

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Course Projects

2015 German credit data scoring using R.

Course Project in IT906-Business and Data Analytics (University Of Hyderabad)

Description : A credit scoring system should be able to classify customers as good credit those who are expected to repay on time and as bad credit those who are expected to fail. This study illustrates the use of data mining techniques to construct credit scoring models. Also, it illustrates the comparison of credit scoring models to give a superior final model.

Contributions :

1. Done pre-processing of data such as Statistical analysis, Data transformation (over sampling, Re-scaling, Re-coding).
2. Experimented various classification techniques such as Random Forest, SVM, Neural networks, K-NN, Decision Trees, Logistic regression using R libraries in German credit data.
3. Analyzed the output and made conclusion using evaluation techniques.
4. Documentation done using Latex plug in with Sweave and knitr in Rstudio IDE.

2015 Market Basket Analysis using R and Rapid-Miner.

Course Project in IT906-Business and Data Analytics (University Of Hyderabad)

Description : The purpose of market basket analysis is to determine what products customers purchase together. This study illustrates the use of data mining techniques (Apriori Algorithm and Frequency Pattern Growth) to construct association rules. Also, it illustrates the rules in a graph. We consider Association Mining in the groceries dataset.

Contributions :

1. Done pre-processing of transactional data (groceries data).
2. Generated rules using apriori algorithm, Visualized (graph based, scatter Plot) and analyzed the rules using arules, arulesViz library in R.
3. Used Rapid Miner tool. FP growth algorithm applied to the dataset and analyzed results.
4. Documentation done using Latex and Rsweave.

Internship

2017 Tata Research Development and Design Center (TRDDC), Pune., 6 Months.

Research Internship in System Research Lab @TRDDC.

Publications

- * Vidyadhar Rao, **Rosni K V**, Vineet Padmanabhan. *Divide and Transfer: Understanding Latent Factors for Recommendation Tasks*, RecSysKTL Workshop @ ACM RecSys '17, August 27, 2017, Como, Italy

Research Interests

- Machine Learning
- Recommender System
- Data Analytics
- Security and Privacy

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Technical skills

Languages C, Python, R, Matlab, Basics of Prolog and Haskell
Web HTML, CSS
Tools Rstudio, GNU Octave, LaTeX, Shell scripting, git
OS Linux

Relevant Courses

Business and Data Analytics	Machine Learning
Digital Image Processing	Biometrics
Knowledge Representation and Reasoning	Problem Solving Methods
Natural Language Processing	Data Engineering

Relevant Courses @ Coursera

Stanford **Introduction to Mathematical Thinking**

Positions of Responsibility Held

- Secretary(2014), Free and Open Source Software Unit, Govt. Engineering College, Sreekrishnapuram, Kerala, India
- Student Coordinator(2014), Spoken Tutorial Workshops(IITB), Govt. Engineering College, Sreekrishnapuram, Kerala, India

Extra-Curricular Achievements and Activities

- Participated in *The Smart Recruits, DataScience Competition*, Hackathon organized by Analytics Vidhya.
- Solving programming problems from HackerRank (www.hackerrank.com).
- Blogging, **rosnikv.github.io**
- Completed online short courses(Duration in hours) Introduction to R, Kaggle R tutorial on machine learning by DataCamp.
- Selection in Kites Project Expo 2k13(IEEE) for B.Tech Mini Project.
- Participated in Rails Girls one day workshop,2013,Bangalore.
- Attended foss.in/2012 an annual free and open source software (FOSS) conference.
- Completed Red Hat System Administration Courses/ 2012.

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