

Avinash Kadimisetty

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EDUCATION

University of Illinois at Urbana-Champaign

Champaign, IL

Master's degree in Computer Science; GPA: 4.0

August 2018 – December 2019 (expected)

Relevant Coursework: Machine Learning, Deep Learning, Data Warehousing & Data Mining, Computer Vision

IIITDM Kancheepuram

Chennai, India

Bachelor's degree in Computer Engineering; GPA: 3.74 (9.35/10)

August 2012 – July 2016

Relevant Coursework: Linear Algebra, Probability & Statistics, Data Structures & Algorithms, Database Systems

WORK EXPERIENCE

Evive Software Analytics

Bangalore, India

Jr. Data Scientist

January 2017 – July 2018

- **User Behavior Modelling:** Improved the conversion rates by **13%** using machine learning to target potential users.
- **Medical Event Modelling:** Trained predictive models on **AWS EC2** instances to find the chance of occurrence of chronic diseases which avoided **\$2.1mn** in unnecessary treatments.
- **Hospital Readmission:** Identified users at high risk of readmission using machine learning techniques like CNN, Random Forest and Logistic Regression to notify them early and avoid huge healthcare costs.
- **Report Automation:** Accelerated the report generation phase at Evive to reduce the number of analysis hours by **60%**.

Mu Sigma Business Solutions

Bangalore, India

Trainee Decision Scientist

August 2016 – January 2017

- **muScrum:** Developed a web-app to store and analyze scrum details to reduce bi-weekly sprint analysis hours by **15%**.
- **muMix:** Added new visualizations to show optimum spends across multiple channels in a marketing mix product.

TECHNICAL SKILLS

Languages: Python, R, SQL, C++, Java, C, HTML, CSS, JavaScript

Tools & Libraries: PyTorch, TensorFlow, H2O, scikit-learn, NumPy, pandas, NLTK, Matplotlib, dplyr, ggplot, Spark, Tableau

Big Data Tools: Apache Spark, AWS, Google Cloud

Techniques: Linear Regression, Logistic Regression, k-NN, Random Forest, SVM, Boosting, CNN, RNN, LSTM, GRU, PCA, SVD, k-Means, GMM, HMM

PUBLICATIONS

Frequent Pattern Mining approach to Image Compression

India

22nd IEEE International conference on Advanced Computing and Communications

September 2016

- Designed an Image Compression algorithm using Clustering and Frequent Sequence Mining.
- Observed an improvement of **45%** in compression ratio on benchmark datasets when compared to existing alternatives.

Image Compression – A Frequent Sequence Mining perspective employing efficient clustering

India

13th International IEEE India Council International Conference

December 2016

- Devised a compression algorithm using Patch Clustering and Sequence Mining by exploiting neighborhood properties.
- Achieved **18%** better compression ratio on benchmark image Lena, outperforming GIF algorithm.

PROJECTS

Neural Image Caption Generator: Built an image captioning system using pretrained Resnet and 5-layer GRU model architecture to describe an input image in English. Achieved a BLEU-4 score of **22.0** on MSCOCO dataset.

Image Super Resolution: Created an image super resolution framework for x-ray images using Single Image Super Resolution Residual Neural Network. Stood in the top 10 percentile of the class with an average RMSE of **1.41**.

Online Recruitment Portals: Developed web portals for Faculty and Staff Recruitment at IIITDM Kancheepuram. Automated selection process reduced the manual collection and selection process by **30%**.