

# Kevin D'Cruz

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Computer Science Graduate, seeking full time opportunities in Machine Learning, Data and Software Engineering

## EDUCATION

**Master of Science - Computer Science** 2016 - 2018  
University of Massachusetts Dartmouth, MA GPA: 3.51

**Bachelor of Engineering - Computer Engineering** 2011 - 2015  
Mumbai University, India

## ACADEMIC PROJECTS

**API for an Image Recognition System using Deep Learning Models** 01/22/2017 - 06/20/2018

- Built an Image Recognition System based on CNN/Deep Learning using Pre-Trained models (ResNet50, VGG19)
- The user uploads an Image which returns a bar graph displaying the top 5 predictions and their probabilities
- Other Pre-trained models used included InceptionV3, VGG16 and DenseNet (Python, Keras, TensorFlow, Numpy-Pandas-Matplotlib, Django, Bootstrap, Jupyter Notebook, SublimeText3)

**Scalable Data Analysis (Million Song Dataset)** 09/05/2017 - 12/20/2017

- Accessed "Million Song Dataset" (280 GB | Distributed across 8 EC2 Cores) to calculate demography metrics
- Extracted and cleansed to arrive at relevant data and ran exploratory analysis to understand data distribution
- Employed Pandas and PySpark (across sample and complete dataset) to validate and derive at the metrics
- Developed and presented derived metrics on Jupyter Notebook (Python, Native File System, Jupyter Notebook, Pandas-NumPy-PySpark-Matplotlib-PyLab-gmaps-SQLContext, AWS: EMR, EC2(c4.2xlarge), Mobax, Ubuntu)

**Model Comparison for Heart Disease Prediction** 09/05/2017 - 12/20/2017

- Evaluated and Compared Machine Learning models: Decision Trees (Bagging, Boosting and Random Forest), Neural Networks and Logistic Regression on multiple datasets to find the best fit.
- Metrics evaluated: Accuracy, Misclassification error, Cross Validation, ROC Curves and Pruning (R (Cleveland, Statlog, SPECT Datasets: UCI Repository), Excel, RStudio)

**Intelligent and Predictive Page Replacement System** 08/24/2014 - 04/06/2015

- Simulated improvements in OS-Memory Management using OPT against traditional existing LRU
- Algorithm simulated improved the hit-to-miss ratio by 78%
- Secured 3<sup>rd</sup> place in Encore 2015, an online National level Project-Paper presentation competition (PHP, HTML, JavaScript, jQuery)

## PROFESSIONAL EXPERIENCE

**Technology Intern** 09/2015 - 04/2016  
Dun & Bradstreet India

- Developed Stored Procedures and created Views to load tabular formatted data from the source; wrote SQL-DML's to support business requests
- Migrated then existing databases (MS-SQL 2000) to MS-SQL 2008 (Stored Procedures, Views, Excel Pivots, DB: MS-SQL 2000, MS-SQL 2008)

**IT Graduate Assistant** 12/1/2016 - Present  
University of Massachusetts Dartmouth Dartmouth, MA

- Supported System Infrastructure of existing IBM Micros point-of-sale system, cash registers, card printers and cameras used for the UMass Pass and Dining services of the University (Micros)

## SKILLS

- Programming Languages: Python (Packages: NumPy, Scikit-learn, Pandas, PySpark, TensorFlow, Keras), R
- Database Language: MS-SQL | Visualization: Excel, Tableau | Version Control: Git, GitHub
- Web Dev: Django, Bootstrap (HTML, CSS, JS) | Environments: Jupyter Notebook, RStudio, Sublime Text 3