



Keith Mascarenhas

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EDUCATION

Northeastern University, Boston, MA
College of Computer and Information Science
Candidate for a Master of Science in Computer Science

September 2011 - Present
G.P.A.: 3.6/4.0
Graduating: December 2013

University of Mumbai, Mumbai, India
Don Bosco Institute of Technology
Bachelor of Engineering in Computer Engineering

June 2007 – July 2011
G.P.A.: 3.8/4.0

COMPUTER SKILLS

- **Operating Systems:** Linux (Ubuntu), Windows Family, Mac
- **Languages:** Python, Ruby, SQL (*proficient*). C/C++, MATLAB, Java (*prior experience*).
- **Web:** Rails, Django, Celery, RESTful APIs, Apache, Twitter Bootstrap
- **Tools:** Git, Perforce, Subversion, Bash, MySQL Workbench, AWS [EC2, S3, Elastic MapReduce], Heroku, JIRA, Pivotal Tracker

PROJECTS

- **Fantasy Premier League Assistant**, Boston, MA August 2013 - Present
Developed a Rails app that scrapes the Fantasy League site and uses a multi-dimensional knapsack to pick the optimal team. Also uses Machine Learning algorithms to predict player performances so as to pick a better team.
- **Soccer Match Prediction using Machine Learning**, Boston, MA March 2013 – April 2013
Tested multiple learning algorithms utilizing Weka and wrote a Python program that implemented AdaBoost to predict Soccer results with 67% accuracy for a 3 class problem and elicited interesting discoveries in the report.
- **Hand written digit recognition using SVM**, Boston, MA March 2013 – April 2013
Implemented a Support Vector Machine in Python with linear, polynomial and RBF kernels on the MNIST training set of 60,000 records and test set of 10,000 records achieving an accuracy of 93.4%
- **Meta Search Engine in Python**, Boston, MA February 2012 - April 2012
Constructed a meta search engine from ground up, that parsed 3000+ documents, stemmed & stopped 170,000 words and combined 5 variations of retrieval systems and then implemented a PageRank algorithm.

WORK EXPERIENCE

- Software Tools Developer Intern (Akamai Technologies)**, Boston, MA May 2013 – August 2013
- **TDD with Rails:** Ramped up on Rails in two weeks and ported parts of a Perl-based, build-and-release-tracking application to Rails following Test Driven Development principles.
 - **Authentication:** Evaluated and tested integrating Rails with JIRA's REST API using several authentication mechanisms like HTTP Basic Auth., OAuth, and SSL.
 - **Rapidly Prototyped** a Rails3 application in 2 weeks that generated reports of issues on JIRA utilizing various Ruby gems, Twitter Bootstrap, Apache etc.

- Full Stack Developer (Entrepreneurial Finance Lab)**, Boston, MA May 2012 – February 2013
- **Primary full stack developer** with full ownership over Django based web-app serving 30 financial institutions across 25 countries. Ramped up on Django and got to first code-complete release in 2 weeks.
 - **Django WebApp:** Architected and developed 20+ enhancements amounting to 60,000+ lines of code for WebApp, displaying proficiency in Django, jQuery and utilizing MySQL, Google Maps API, CSS, AJAX, REST.
 - **Git Migration:** Headed process and implemented changes to migrate 6 person dev-team from Subversion to Git by independently researching Git for team workflow process. Also served as subject matter expert for the same.
 - **Caching:** Optimized caching framework for Django app using Memcache and Database session-caches consequently reducing page load times by 50%.
 - **System Administration:** Performed Linux/Apache/Git/AWS administration for Django hosting & deployment.