G K Sudharshan | CS13M050

Indian Institute of Technology Madras

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Education

Program	Institution	%/CGPA	Year of completion
Master of Technology, Computer Science and Engineering	Indian Institute of Technology, Madras	**9.4**	2015
Bachelor of Engineering, Computer Engineering	MES College Of Engineering, Pune University	**75.8%**	2011
XIIth Std. (CBSE),	Kendriya Vidyalaya, Ganeshkhind,Pune	**90.2%**	2007
Xth Std. (CBSE)	Kendriya Vidyalaya, Ganeshkhind,Pune	**83.8%**	2005

Technical Expertise

- Programming Languages - C/C++, Java, Python
- Operating Systems - Unix, Windows
- Frameworks and Databases - Apache Hadoop, MySQL, SQLite
- Applications and Tools - Eclipse, vi Editor
- Machine learning Tools - Matlab, libSVM, Weka

Course Work

1. Courses

- Advanced Data Structures and Algorithms
- Concurrent Programming
- Speech Technology
- Pattern Recognition
- Kernel Methods for Pattern Analysis

2. Labs

- Advanced Programming Laboratory
- Software Development and Tools Laboratory

Key Projects

1. Automatic Video Annotation **Ongoing**

https://github.com/sudhargk/video-annotator *IIT, Madras*

Designing algorithms for extracting the semantic events in the video using deep learning and generating the annotation by studying the co-occurrence of events and objects in a given time frame.

2. Deep Neural Net Toolbox **Sep 2014**

https://github.com/iitm-donlab/python-dnn *IIT, Madras*

Built a python tool-kit for deep learning algorithms that are widely used by computer vision and automatic speech recognition community. So far, achieved a state of art results on the MNIST and CIFAR dataset.

FEATURES : Provides easy configuration for new dataset, supports most of the variations in deep learning literature

3. Sharespot **May 2011**

https://github.com/sudhargk/sharespot *MES College Of Engineering, Pune*

Developed an android application that integrates different sharing sites (Flickr, YouTube and Picasa) into a single mobile application. Received guidance from Persistent Systems Ltd, Pune.

FEATURES : Allows configuration of multiple account, caching of media and parallel browsing.

4. Online Dead Stock Register **May 2009**

https://github.com/sudhargk/dead-stock-register *MES College Of Engineering, Pune*

Designed a management system that replaces the conventional bulky registers to hold the records of the dead stock of any institution. Submitted to the college for their internal use.

FEATURES : Authorization based on profile of the logged in user. Supports automatic and manual resolution of dead stock numbering.

Course Projects

1. Spotting of optimal business location **Jan - Apr 2014**

https://github.com/sudhargk/datamining *IIT Madras*

Designed a machine learning solution using the location based social networking data to identify the best location among the different locations suggested.

HIGHLIGHTS : Implemented multiple regression techniques and achieved 81 % accuracy on cross-validation.

2. A parallel implementation of Discrete Hidden Markov Model **Jan - Apr 2014**

https://github.com/sudhargk/parallelhmm *IIT Madras*

Implemented two main aspects of HMM training which are forward evaluation and vitterbi alignment algorithm using pthreads.

HIGHLIGHTS : Attained 2x speed up using four threads on a long input sequences.

Professional Experience (Two years)

1. Connector Development **Feb 2013 - Jul 2013**

Senior Software Engineer *Persistent System Private Limited, Pune*

SCOPE : Build connectors for different platform (CRM, ERP and Social platforms) and generate BI reports after data scraping.

PERSONAL CONTRIBUTIONS : Designed and built a generic parsing module to parse responses (XML,JSON,CSV) and generate relational data in a streaming manner helping client in agile development of connectors.

2. Contact Center Analytics **Apr 2012 - Jan 2013**

Software Engineer *Persistent System Private Limited, Pune*

SCOPE : Predict the call volume in contact center which in turn help staffing of contact center workers.

PERSONAL CONTRIBUTIONS : Solved ad-hoc analytical queries on contact centre data and built regression model to predict call volumes.

3. Ticket breach prediction **Sep 2011 - Mar 2012**

Software Engineer *Persistent System Private Limited, Pune*

SCOPE : Build a tool to help the call center dispatchers in understanding whether a ticket created by the customers would breach the SLA or not.

PERSONAL CONTRIBUTION : Implemented new features like internationalization of all texts in the tool and exporting predictions results to excel. Also developed code in java for testing data from PMML, removing the dependency on expensive toolkit.

Scholastic Achievements

- Won Second Prize for Code Red Contest in Solutions'10 organized by Army Institute of Technology,Pune.
- Participated and won Second prize for C/C++ and paper presentation Contest in Zest'08 conducted by the Association Of Computer Engineers (A.C.E.)
- Secured college-first in F.Y. engineering

Positions of Responsibility

- Teaching Assistant for Computational Engineering Lab and Pattern Recognition Course at IIT Madras.

Interested in

- Listening to Music
- Playing Cricket, Table Tennis
- Reading books

Objective

To be a part of an organization where the process of learning never ends, imagination takes its wings to unexplored skies and hard workers are always motivated.