Akhil P M
Curriculum Vitae

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Info

LinkedIn	`https://in.linkedin.com/pub/akhil-pm/31/b60/657`
Github	`https://github.com/akhilpm`

Career Objective

Objective **To secure a promising, successful and challenging career in a reputed organization where my knowledge and skill can be effectively applied, enabling me to explore myself fully and realize my full potential.**

Education

2014–Present **Master of Technology in Machine Learning & Computing**
Indian Institute of Space Science & Technology `http://www.iist.ac.in/`
CGPA – 8.1 Till now.

2009–2013 **Bachelor of Technology in Computer Science & Engineering**
University of Kerala
Institute: College of Engineering, Trivandrum `http://cet.ac.in/`
CGPA – 7.69.

2006–2008 **Higher Secondary Education**
Kerala State Board of Higher Secondary Education, Score – 90.00%.

2005–2006 **Secondary Education**
Kerala State Board of Secondary Education, Score – 88.00%.

Technical Skills

Programming Languages	C, C++, Matlab, PYTHON, JAVA(Basics)
Scripting	JavaScript, Shell Scripting(Basics)
Operating Systems	GNU/Linux, Ms Windows XP/7
Software Packages	LaTeX, Eclipse, GCC, GDB

Academic Projects

2015 **Kernel Methods for Deep Learning(Thesis - ongoing)**
Deep Learning based feature engineering techniques are getting popular nowadays, because of their ability to learn more abstract features at higher layers of representations, which can make the prediction task easier. However much of the work in Deep Learning is done on Neural Network based architectures which are often challenging to train effectively. We explore kernel based Deep Learning techniques, that includes multi-layer kernel machines(MKMs) derived from arc-cosine kernels and the layers are trained in a greedy fashion consisting of unsupervised feature extraction and supervised feature selection in each layer. The architecture is fairly simple and easy to train compared to the Neural Network based Deep Learning machines. In order to broaden the application of this architecture we are exploring the scope of unsupervised MKL for feature extraction so that a wide variety of similarity measures can be utilized in the feature extraction stages.
https: // github. com/ akhilpm/ Masters-Project .

2015 **Multi-Label Classification Using Struct SVM**
The scope of applying the struct-SVM algorithm on Multi-Label Classification Problems is explored. A suitable loss function and combined feature map representations were formulated in accordance with the problem. Testing and training were done on a semantic scene classification Problem.

2014 **An Improved PSO Algorithm for Solving TSP with Edge Recombination Operator**
A modified discrete-PSO algorithm is proposed for solving TSP, with the use of edge recombination operator for redefining the dependant moves in PSO. The new algorithm showed significantly better performance than the edge recombination crossover based GA, in terms of convergence rate and quality of solutions for benchmark problems from TSPLIB.

2013 **Machine Parsable RESTfull web API**
We proposed a Microformats -like grammar that helps to annotate semantics into the already existing documentation of REST services doubling them as machine-readable descriptions. Moreover, these basic annotations help to link between RESTful services in the same domain and enables automatic discovery and composition.

2011 **BOINCr-Graphical Interface to manage BOINC projects**
We implemented a graphical interface in Java to control BOINC server and to allow easy deployment of BOINC apps and work units.

Achievements & Activities

2015 Attended the Indo-UK workshop on "Conformal Prediction for Reliable Machine Learning(CPRML 2015)" conducted by IIT Hyderabad and presented a poster on *Kernel methods for Deep Learning* in the student poster session.

2015 Attended the tutorial sessions on *Dimensionality Reduction Techniques* in "IEEE International conference on Recent Advances in Intelligent Computational Systems(RAICS 2015)".

2012 Event co-ordinator of Linux kernel API programming on Drishti-2012, annual tech fest of College of Engineering, Trivandrum.

2010 Conducted a presentation on GREEN IT in CETEX 2010, a technical exhibition conducted by College of Engineering, Trivandrum.

| 2009 | Won CETAA(College of Engineering,Trivandrum Alumini Association)award for meritorious student in 2009 |

Language Skills

English	fluent
Malayalam	fluent
Hindi	Conversationally fluent

Interests and Hobbies

- Trekking
- Blogging
- Swimming
- Cooking

Personal Details

Date of Birth	11 April 1991
Nationality	Indian
Address	Pilakkatt Meethal House, Kuruvangad P O, Koyilandy, Calicut, Kerala, Pin: 673305
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