

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 L^AT_EX, Eclipse, GCC, GDB

Academic Projects

- 2015 **Kernel Methods for Deep Learning(Thesis - ongoing)**
We explore kernel based feature engineering techniques using KPCA with arc-cosine kernels - a new family of kernels which can mimic the computation in large, multilayer neural nets. Efficient methods for feature selection between the alternate layers of this multilayer kernel machines(MKMs) is studied, which shows promising results and improved running time. A comparative study with sparse autoencoder based feature learning techniques is also done. To deploy the framework in structured output prediction problems cutting plane methods for optimizing the SVMs is implemented.
<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
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 Koyilandy,
 Calicut,
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