
ARUN KALYANASUNDARAM

PERSONAL INFORMATION

Areas of Interest: Social Media Analytics, Applied Machine Learning, Distributed Systems.

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Homepage: <http://www.cs.cmu.edu/~arunkaly> *Github:* <https://github.com/arunk054>

EDUCATION

Ph.D. in Societal Computing Carnegie Mellon University School of Computer Science	GPA: 4.00	Aug. 2013 - Present
Master of Technology in Computer Science. International Institute of Information Technology Bangalore (IIIT-B)	GPA: 3.89	Jul. 2011
Bachelor of Engineering (Hons.) Electronics & Instrumentation Engineering Birla Institute of Technology & Science, Pilani (BITS, Pilani)	GPA: 8.2 out of 10.0	Jun. 2006

PROFESSIONAL EXPERIENCE

VMware Inc., Palo Alto – Performance Intern	May 2015 – Aug. 2015
<ul style="list-style-type: none">• Developed an auto-scaler service for a cloud computing platform.• Evaluated its performance by building a cloud native app benchmark using Netflix OSS components.• Designed workloads using Apache JMeter to simulate real world scenarios.	
Hewlett-Packard Company, India - Senior Software Engineer	Jul. 2011 – Jul. 2013
<ul style="list-style-type: none">• Launched several experiments on Amazon Mechanical Turk such as refer a task to friends on Facebook, video analytics, and goal gradient effect on worker performance.• Filed two patents – a) Task Assignment and b) Result Aggregation in Crowdsourcing.	
Hewlett-Packard Labs, India - Research Intern	Jan. 2011 – Jun. 2011
<ul style="list-style-type: none">• Algorithms to detect influential users in a social network and implemented an incentive based routing app on Twitter.	
Novell Inc., India - Senior Software Engineer	Jul. 2007 – Jul. 2009
<ul style="list-style-type: none">• Developed package management features for the SUSE Linux Operating system.• Led a team of eight engineers on two sprints that lasted for three months.	

COMPUTER SKILLS

Programming Languages: Java, C++, JavaScript, Python.
Software Tools: R, Weka, Apache JMeter, Matlab, SPSS.

GRADUATE COURSE WORK

Systems: Distributed Computing, Operating Systems, Computer Architecture.
Analytics: Applied Machine Learning, Computational Modeling, Network Analysis.

PROJECTS (*Selected*)**A Machine Learning Approach to Automatically Label Issues on Github**

The goal of this project is to predict labels assigned to issues on Github. Both text and social features were used in a Stacked classifier in Weka (also modified its source code).

Identifying Influential Users in a Social Network

Developed an algorithm to detect the top-k influential users in a network and evaluated it on a set of simulated networks and a co-authorship network. (*published*)

Deadlock Detection in JAVA and C# Libraries using Static Analysis

Developed a parser to generate method invocation graphs from C# CIL (Common Intermediate Language) and Java disassembled code to detect cycles in the call graph.

SELECTED CONFERENCE PUBLICATIONS - (*All Peer Reviewed*)

- [1st Author] “*An Agent-Based Model of Edit Wars in Wikipedia: How and When is Consensus Reached*”, In ACM Winter Simulation Conference 2015.
- [1st Author] “*Fail-Stop Distributed Combinatorial Auctioning Systems with Fair Resource Allocation*”, In IEEE CASE 2011.
- [Co-Author] “*A Network Pruning Based Approach for Subset Specific Influential Detection*”, In ACM WebSci 2012. (*Nominated for the best paper award*)

AWARDS / HONOURS

- Awarded Best Student of the year 2011, at IIIT-B. (*For all round academic excellence*)
- Recipient of Hewlett-Packard Graduate scholarship for the period Aug. 2009 – Jun. 2011. (*2 out of 153 students; full tuition fees + stipend*).
- Runner-up at a Yahoo hackathon during Dec. 5 – 9, 2009. (*~55 teams; Demo Available*)
- Winner of the Pit-Crew Award at Novell. Inc. in 2008. (*A quarterly team award*)
- Received monetary incentives for filing two patents contributing to Hewlett-Packard’s IP.