

Emaad Ahmed Manzoor

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EDUCATION	King Abdullah University of Science and Technology Aug 2013 – Aug 2015 (expected) Master of Science, Computer Science. GPA: 3.95 / 4.0 <i>Thesis title:</i> Scheduling broadcasts in a network of timelines. <i>Advisor:</i> Panos Kalnis.
	Birla Institute of Technology and Science - Pilani Aug 2008 – May 2012 Bachelor of Engineering (Honours), Computer Science. GPA: 8.17 / 10.0
WORK EXPERIENCE	Oregon State University , Corvallis. Google Summer of Code Intern. May – Aug, 2014 Constructed a framework that enables running IPMI operations on data-centre machines from systems that lack the standard IPMI utilities, including devices like Android smartphones. <ul style="list-style-type: none">• Designed and developed a REST service enabling IPMI operations over HTTP.• Designed and developed an extensible, hierarchical CLI that delegates to the REST service.• Designed and implemented mechanisms for fine-grained user-machine permission management. Yahoo! , Bangalore. Software Engineer. Jul 2012 – Aug 2013 Built a streaming system for event detection from live content feeds like Twitter, Facebook and newswire. Reduced event detection latency by over 600%. Powers <i>Trending Now</i> on the Yahoo! homepage. <ul style="list-style-type: none">• Wrote Storm components for streaming n-gram counting and cardinality estimation.• Designed and evaluated HBase schemas to minimize the duration of failure recovery.• Wrote adapters to preprocess source content from Kafka before routing it to Storm. Tachyon Technologies , Bangalore. Research Intern. May – July, 2012 Designed algorithms to automatically transform comic book photographs into device-friendly comic panels. Advised by CEO and MIT TR35 awardee Ram Prakash Hanumanthappa. <ul style="list-style-type: none">• Developed a fast algorithm to de-warp photographs of flat book pages.• Implemented an algorithm from the low-level vision literature to flatten colour gradients.• Built an Android app interfacing with my algorithms in MATLAB over a Python HTTP bridge. Yahoo! , Bangalore. Software Engineer Intern. Jul – Dec, 2011 Extended the event detection system to be centrally configurable and multi-threaded. Reduced deployment time from days to a few minutes. Accepted a full-time position (offered to 3/14 interns). <ul style="list-style-type: none">• Wrote an XML-based configuration system that also enabled fine-grained load balancing.• Refactored code to process multiple locales in parallel while balancing per-machine load.• Implemented a research prototype to detect geographically and demographically niche events. University of Massachusetts , Lowell. MVHub Summer of Code Intern. Jun – Sep, 2011 Built a Debian package for MVHub, a directory of non-profit services maintained by the Community Software Lab at the University of Massachusetts, Lowell. <ul style="list-style-type: none">• Wrote configuration scripts as per the Debian package specifications.• Wrote Perl scripts to automate building and updating the Debian package.• Wrote a Launchpad recipe and set up a PPA to conveniently host and install the package from.

RESEARCH	Scheduling Broadcasts in a Network of Timelines	Jan 2014 – Now
EXPERIENCE	<i>Advised by Panos Kalnis, InfoCloud Research Group, KAUST.</i> Designing broadcast scheduling algorithms to maximize organic reach in an online social network. <ul style="list-style-type: none"> • Introducing and quantifying monotony aversion exhibited by social network users with timelines. • Validating bursty circadian rhythms of social network users and its influence on information overload. • Formulating the objective function and developing a method to find the optimal schedule. 	
	Detecting Malware Android Applications	Aug – Dec, 2013
	<i>Advised by Xiangliang Zhang, MINE Lab, KAUST.</i> Applying machine learning algorithms to classify Android applications as malware or not, based only on the permissions they request. <ul style="list-style-type: none"> • Reformulated the classification task as an NLP problem, with permissions forming the vocabulary. • Reduced dimensionality while remaining interpretable using Latent Dirichlet Allocation. • Evaluated the subsequent classification performance of various machine learning algorithms. 	
AWARDS	<ul style="list-style-type: none"> • Best Mashery Hack, PennApps X, Philadelphia (sponsored by Intel). • International Travel Grant, PennApps X, Philadelphia (sponsored by PennApps). • King Abdullah University of Science and Technology Fellowship. • Erasmus Mundus LCT Masters Scholarship¹ (awarded to 4 international applicants). • Winner, Random Hacks of Kindness, Bangalore. • Consultancy Development Cell Fellowship, Ministry of Science and Technology of India. 	2014 2014 2013 2013 2011 2009
TALKS	<ul style="list-style-type: none"> • <i>Time-Inconsistent Planning</i>. InfoCloud Seminar. • <i>Time-sensitive Diffusion Network Inference</i>. Machine Learning Project Presentation. • <i>Reinforcement Learning</i>. Machine Learning Course Lecture. • <i>Finding Communities in Networks</i>. Data Mining Course Lecture. • <i>Reviving Failed Classifiers with Random Forests</i>. Tech talk at Yahoo!. • <i>Building a Linux cluster with Beanstalkd</i>. Tutorial at PyCon India. • <i>quFiles: The right file at the right time</i>. Data Storage Technologies Seminar. 	May 2014 May 2014 Apr 2014 Nov 2013 May 2013 Sep 2012 Nov 2012
TEACHING	<ul style="list-style-type: none"> • <i>Programming Languages and Compilers</i>. Course project design and grading. • <i>MIT Indian Mobile Initiative</i>. Android development lab sessions and tutoring. • <i>Software Development for Portable Devices</i>. Google-funded teaching assistant. 	Spring 2012 Summer 2011 Spring 2011
LEADERSHIP	Organizational positions held as an undergraduate at BITS - Pilani Goa Campus: <ul style="list-style-type: none"> • Coordinator, Publicity and Public Relations, Waves Cultural Festival. • Core Member, Literary and Debating Club. • Chief Designer, Department of Publicity and Public Relations. • Core Member, Department of Journalism and Media Affairs. • Event Manager, Geek 'N Latin, Quark Technical Festival. • Event Manager, Press Corps, Waves Cultural Festival. 	2010 – 2011 2010 – 2011 2009 – 2010 2009 – 2010 2009 2009
LANGUAGES	Java (preferred), Python, C.	

¹Declined, having accepted the KAUST Fellowship.