

Emaad Ahmed Manzoor

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EDUCATION	Carnegie Mellon University – H. John Heinz III College, USA Ph.D., Information Systems. Advisor: Leman Akoglu.	2016 –
	Stony Brook University, USA Ph.D., Computer Science. Advisor: Leman Akoglu.	2015 – 2016¹
	King Abdullah University of Science and Technology, Saudi Arabia M.S., Computer Science. Advisor: Panos Kalnis. Thesis: Scheduling Broadcasts in a Network of Timelines.	2013 – 2015 GPA: 3.96 / 4.0
	Birla Institute of Technology and Science - Pilani, India Bachelor of Engineering (Honors), Computer Science. Co-op host: Yahoo!, Bangalore, India.	2008 – 2012 GPA: 8.17 / 10.0
PUBLICATIONS & PATENTS	<ol style="list-style-type: none"><i>RUSH! Targeted Time-limited Coupons via Purchase Forecasts.</i> <u>Emaad Manzoor</u>, Leman Akoglu. ACM SIGKDD 2017 (applied data science track, top 85/396 submissions).<i>Fast Memory-Efficient Anomaly Detection in Streaming Heterogenous Graphs.</i> <u>Emaad Manzoor</u>, Sadegh M. Milajerdi, Leman Akoglu. ACM SIGKDD 2016 (research track with oral, top 70/784 submissions).<i>Method and apparatus for scheduling broadcasts in social networks.</i> <u>Emaad Ahmed Manzoor</u>, Panos Kalnis. Filed February 2015 (USPTO, WPO).<i>Scheduling Broadcasts in a Network of Timelines.</i> <u>Emaad Ahmed Manzoor</u>, Haewoon Kwak, Panos Kalnis. Unpublished manuscript, 2015.	
AWARDS	<ul style="list-style-type: none">CMU GSA/Provost Office Conference Funding Award (\$500).ACM SIGKDD Student Travel Award (\$1,750).Institute of Advanced Computational Science Young Writer’s Award (\$500).Stony Brook University Special CS Department Chair Fellowship (\$8,000).Worldwide Top 100 (of 1720 teams), IEEE Xtreme 8.0 Programming Competition.Best Mashery Hack & Travel Grant, PennApps X, Philadelphia (\$500).King Abdullah University of Science and Technology Fellowship (\$140,000)².Erasmus Mundus LCT Masters Scholarship (EUR 40,000)³.Employee Performance Bonus, Yahoo! (INR 35,000).Google Teaching Scholarship, BITS - Pilani, Goa Campus (INR 16,000)⁴.Consultancy Development Cell Fellowship, Ministry of Science & Tech., India (INR 10,000).	2017 2016, 2017 2016 2015 2015 2014 2013 2013 2012, 2013 2011 2009
INDUSTRIAL EXPERIENCE (FULL-TIME)	Yahoo! , Bangalore. Software Engineer. <ul style="list-style-type: none">Built (team of 4) a system for streaming “trending-topic” detection from user-generated content.Large impact within the company, improved over previous trend-detection latency by 600%.Implemented with Apache Storm, Kafka, HBase and Java.	Jul 2012 – Aug 2013

¹Incomplete, transferred.

²\$70,000/year for two years including tuition (\$35,000), health insurance (\$15,000), stipend (\$20,000) and housing.

³Declined. Category A scholarship: EUR 20,000/year for two years. Awarded to 4 international applicants.

⁴For the undergraduate Software Development for Portable Devices course taught by Prof. Mangesh Bedekar.

INDUSTRIAL & RESEARCH EXPERIENCE (INTERN)	<p>Max Planck Institute for Software Systems, Kaiserslautern. Research Intern. Summer 2017 Advised by Manuel Gomez-Rodriguez.</p> <ul style="list-style-type: none"> • Research on crowdsourced knowledge markets and stochastic optimal control. <p>Quantitative Engineering Design, San Francisco (remote). Research Intern. Summer 2015 Advised by cofounders William Wu (Ph.D., EE, Stanford) and Jiehua Chen (Ph.D., Statistics, Stanford).</p> <ul style="list-style-type: none"> • Designed and developed an online variant of a Bayesian model to predict financial fraud. • Developed a reference implementation of Mondrian Forests (online random forests). • Designed a distributed system architecture to enable online training of a classifier ensemble. <p>Oregon State University, Corvallis (remote). Google Summer of Code Intern. Summer 2014</p> <ul style="list-style-type: none"> • Designed and developed a REST service to enable IPMI operations over HTTP. • Designed and developed an extensible, hierarchical CLI that delegates to the REST service. • Design and implementation discussed at eyeshalfclosed.com/tags/#gsoc2014-ref. <p>Tachyon Technologies, Bangalore. Research Intern. Summer 2012 Advised by cofounder and MIT TR35 awardee Ram Prakash Hanumanthappa.</p> <ul style="list-style-type: none"> • Developed a fast, simple and effective algorithm to de-warp photographs of flat book pages. • Implemented an algorithm from the low-level vision literature to flatten color gradients. • Applied algorithms to transform photos of comic book pages into web-ready digital comic panels. • Packaged into an Android app interfacing with my code in MATLAB over a Python HTTP bridge. <p>Yahoo!, Bangalore. Software Engineer Intern. Fall 2011</p> <ul style="list-style-type: none"> • Extended the “trending-topic” detection system to be centrally configurable and multi-threaded. • Implemented a research prototype to detect geographically and demographically niche events. • Offered and accepted a full-time position (top 3/14 interns from BITS – Pilani University). <p>University of Massachusetts, Lowell (remote). MVHub Summer of Code Intern. Summer 2011</p> <ul style="list-style-type: none"> • Built a Debian package for MVHub, a directory of non-profit services. • 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.
TEACHING	<ul style="list-style-type: none"> • Programming Languages and Compiler Design. Course project design and grading. Spring 2012 • MIT Indian Mobile Initiative. Android development lab sessions and tutoring. Summer 2011 • Software Development for Portable Devices. Spring 2011
SERVICE	<ul style="list-style-type: none"> • External reviewer for SocInfo, WWW, EuroSys, VLDBJ, CIKM. • Organized TechFM, a weekly technical talk series at Yahoo! on math, science and technology. • Frequent participant at Random Hacks of Kindness.
LANGUAGES	<ul style="list-style-type: none"> • Analysis: Python (preferred) • Performance: C++ (preferred), Java (for distributed systems)

SELECTED	All slides available at http://speakerdeck.com/emaadmanzoor .	
TALKS	Videos available at http://eyeshalfclosed.com/talks/ .	
	<ul style="list-style-type: none"> • <i>Fast Memory-efficient Anomaly Detection in Streaming Heterogenous Graphs.</i> <ul style="list-style-type: none"> – ACM SIGKDD Conference (research-track oral presentation). Aug 2016 – CMU Database Group Seminar (hosted by Christos Faloutsos). Oct 2016 – RSA Laboratories (hosted by Zhou Li and Kevin Bowers). Nov 2016 – CMU Statistical Networks Seminar (hosted by Cosma Shalizi). Nov 2016 • <i>Scheduling Broadcasts in a Network of Timelines.</i> Masters Thesis Defense, KAUST. May 2015 • <i>Time-Inconsistent Planning.</i> InfoCloud Research Group Seminar, KAUST. May 2014 • <i>Reviving Failed Classifiers with Random Forests.</i> Tech talk at Yahoo!. May 2013 • <i>Building a Linux cluster with Beanstalkd.</i> Tutorial at PyCon India. Sep 2012 	

SELECTED All completed courses listed were awarded grades A- or higher. Fall 2017 courses are upcoming.

GRADUATE
COURSEWORK

Economics

- Economining (Dokyun Lee, CMU) **Fall 2017**
- Introduction to Econometric Theory (Edson Severnini, CMU) **Spring 2017**
- Microeconomics (Brian Kovak, CMU) **Fall 2016**

Statistics & Machine Learning

- Convex Optimization (Aarti Singh, CMU) **Fall 2017**
- Advanced Introduction to Machine Learning (Barnabas Poczos, CMU) **Fall 2017**
- Intermediate Statistics (Larry Wasserman, CMU) **Fall 2016**

Computer Science

- Operating Systems (Michael Ferdman, Stony Brook University) **Fall 2015**
- Theory of Database Systems (Fusheng Wang, Stony Brook University) **Fall 2015**
- Artificial Intelligence (I.V. Ramakrishnan, Stony Brook University) **Fall 2015**
- Computational Complexity (Antoine Vigneron, KAUST) **Fall 2014**
- Probability and Random Processes (Mohammed-Slim Alouini, KAUST) **Fall 2014**
- Machine Learning (Xiangliang Zhang, KAUST) **Spring 2013**
- Advanced Topics in Data Management (Panos Kalnis, KAUST) **Spring 2013**
- Data Analytics (Xin Gao, KAUST) **Fall 2013**
- Computing Systems and Concurrency (Hany Ramadan, KAUST) **Fall 2013**
- Design and Analysis of Algorithms (Mikhael Moshkov, KAUST) **Fall 2013**