

# Emaad Ahmed Manzoor

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EDUCATION	<p><b>Carnegie Mellon University, PA, USA</b> <b>2016 – 2021*</b> Ph.D., Information Systems (H. John Heinz III College). Advisors: Dokyun Lee, George Chen.</p> <p><b>Stony Brook University, NY, USA</b> <b>2015 – 2016<sup>1</sup></b> Ph.D., Computer Science. Advisor: Leman Akoglu.</p> <p><b>King Abdullah University of Science and Technology, Saudi Arabia</b> <b>2013 – 2015</b> M.S., Computer Science. Advisor: Panos Kalnis. Thesis: Scheduling Broadcasts in a Network of Timelines.</p> <p><b>Birla Institute of Technology and Science - Pilani (Goa Campus), India</b> <b>2008 – 2012</b> Bachelor of Engineering (Honors), Computer Science.</p>
WORK IN PROGRESS	<ul style="list-style-type: none"><li>• <i>Inferring Semantic Hierarchies from Human Curation Behavior.</i> <u>Emaad Manzoor</u>, Dhananjay Shrouthy, Rui Li, Jure Leskovec. To be submitted, 2019.</li><li>• <i>Focused Concept Miner (FCM): Interpretable Deep Learning for Text Exploration.</i> Dokyun Lee*, <u>Emaad Manzoor</u>*, Zhaoqi Cheng* (*equal contribution). <b>Marketing Science</b> (revise and resubmit). <a href="https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3304756">https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3304756</a></li></ul>
PUBLICATIONS	<ul style="list-style-type: none"><li>• <i>xSTREAM: Outlier Detection in Feature-Evolving Data Streams.</i> <u>Emaad Manzoor</u>, Hemank Lamba, Leman Akoglu. <b>ACM SIGKDD 2018</b> (research track with short presentation, top 181/983 = 18.41%). <a href="https://cmuxstream.github.io/">https://cmuxstream.github.io/</a></li><li>• <i>RUSH! Targeted Time-limited Coupons via Purchase Forecasts.</i> <u>Emaad Manzoor</u>, Leman Akoglu. <b>ACM SIGKDD 2017</b> (applied data science track with poster, top 85/396 = 21.47%). <a href="https://github.com/emaadmanzoor/rush/">https://github.com/emaadmanzoor/rush/</a></li><li>• <i>Fast Memory-Efficient Anomaly Detection in Streaming Heterogenous Graphs.</i> <u>Emaad Manzoor</u>, Sadegh M. Milajerdi, Leman Akoglu. <b>ACM SIGKDD 2016</b> (research track with long presentation, top 70/784 = 8.93%). <a href="https://sbustreamspot.github.io/">https://sbustreamspot.github.io/</a></li></ul>
PATENTS	<ul style="list-style-type: none"><li>• <i>Scheduling Broadcasts in a Network of Timelines.</i> <u>Emaad Ahmed Manzoor</u>, Haewoon Kwak, Panos Kalnis. Unpublished manuscript (<a href="https://arxiv.org/abs/1610.06052">https://arxiv.org/abs/1610.06052</a>), 2015. Patent filed in February, 2015 (<a href="https://patents.google.com/patent/W02016132332A1">https://patents.google.com/patent/W02016132332A1</a>).</li></ul>
AWARDS	<ul style="list-style-type: none"><li>• Snap Inc. Research Fellowship Semi-finalist. <b>2019</b></li><li>• ACM SIGKDD Student Travel Award (\$3,050). <b>2016, 2017, 2018</b></li><li>• Institute of Advanced Computational Science Young Writer's Award (\$500). <b>2016</b></li><li>• Stony Brook University Special CS Department Chair Fellowship (\$8,000). <b>2015</b></li><li>• Worldwide Top 100 (of 1720 teams), IEEE Xtreme 8.0 Programming Competition. <b>2015</b></li><li>• Best Mashery Hack &amp; Travel Grant, PennApps X, Philadelphia (\$500). <b>2014</b></li></ul>

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<sup>1</sup>Incomplete, transferred.

PROFESSIONAL EXPERIENCE	<b>Pinterest Labs</b> , San Francisco. Research Intern. Summer 2018 Research on semantic hierarchies and graph embeddings. Advised by Rui Li and Jure Leskovec.
	<b>Max Planck Institute for Software Systems</b> , Kaiserslautern. Research Intern. Summer 2017 Research on stochastic optimal control. Advised by Manuel Gomez-Rodriguez.
	<b>Quantitative Engineering Design</b> , San Francisco (remote). Research Intern. Summer 2015 Research and development on streaming machine-learning. Advised by William Wu and Jiehua Chen.
	<b>Oregon State University</b> , Corvallis (remote). Google Summer of Code Intern. Summer 2014 Designed and developed a REST service to enable remote datacenter machine administration.
	<b>Yahoo!</b> , Bangalore. Software Engineer. Jul 2012 – Aug 2013 Developed a distributed streaming NLP system for trending-topic detection (Storm, Kafka, HBase).
	<b>Tachyon Technologies</b> , Bangalore. Research Intern. Summer 2012 Designed algorithms for automatic comic book digitization. Advised by Ram Prakash Hanumanthappa.
SELECTED TALKS	<b>Yahoo!</b> , Bangalore. Software Engineer Intern. Fall 2011 Designed and developed a configuration system for trending-topic internationalization.
	<b>University of Massachusetts</b> , Lowell (remote). Summer of Code Intern. Summer 2011 Designed and developed a Debian package building and maintenance pipeline on Launchpad.
	Slides available at <a href="http://speakerdeck.com/emaadmanzoor">http://speakerdeck.com/emaadmanzoor</a> . Videos available at <a href="http://eyeshalfclosed.com/talks/">http://eyeshalfclosed.com/talks/</a> .
	<ul style="list-style-type: none"> <li>• <i>Outlier Detection in Feature-evolving Data Streams</i>. <ul style="list-style-type: none"> <li>– ACM SIGKDD 2018 Conference (research-track poster blitz presentation). Aug 2018</li> <li>– Outlier Detection Deconstructed workshop at SIGKDD 2018 (invited talk). Aug 2018</li> <li>– Facebook Artificial Intelligence Research (hosted by Kavya Srinet). Aug 2018</li> <li>– Symantec Research Labs (hosted by Kevin Roundy and Sandeep Bhatkar). Aug 2018</li> </ul> </li> <li>• <i>RUSH! Targeted Time-limited Coupons via Purchase Forecasts</i>. Heinz College, CMU. May 2018</li> <li>• <i>Fast Memory-efficient Anomaly Detection in Streaming Heterogenous Graphs</i>. <ul style="list-style-type: none"> <li>– ACM SIGKDD 2016 Conference (research-track oral presentation). Aug 2016</li> <li>– CMU Database Group Seminar (hosted by Christos Faloutsos). Oct 2016</li> <li>– RSA Laboratories (hosted by Zhou Li and Kevin Bowers). Nov 2016</li> <li>– CMU Statistical Networks Seminar (hosted by Cosma Shalizi). Nov 2016</li> <li>– INFORMS Annual Meeting 2016 (invited talk). Nov 2016</li> </ul> </li> <li>• <i>Scheduling Broadcasts in a Network of Timelines</i>. Masters Thesis Defense, KAUST. May 2015</li> <li>• <i>Time-Inconsistent Planning</i>. InfoCloud Research Group Seminar, KAUST. May 2014</li> <li>• <i>Reviving Failed Classifiers with Random Forests</i>. Yahoo! TechFM. May 2013</li> <li>• <i>Building a Linux cluster with Beanstalkd..</i> PyCon 2012 tutorial. Sep 2012</li> </ul>
TEACHING	See <a href="http://www.eyeshalfclosed.com/teaching/">http://www.eyeshalfclosed.com/teaching/</a> for teaching material and student evaluations.
	<ul style="list-style-type: none"> <li>• 95-865/94-775 Unstructured Data Analysis (George Chen, CMU). F17, S18, F18, S19</li> <li>• 95-813 Intermediate Databases (Jeremy Smith, CMU). F17, F18</li> <li>• CSE-590 Supercomputing (Rezaul Chowdhury, Stony Brook University). S16</li> <li>• CSE-101 Introduction to Computers &amp; IT (Michael Tashnook, Stony Brook University). S16</li> <li>• Programming Languages and Compiler Design (Ramprasad Joshi, BITS - Pilani University). S12</li> </ul>

SELECTED	All completed courses listed were awarded grades A- or higher. Spring 2019 courses are ongoing.	
GRADUATE		
COURSEWORK	<b>Economics &amp; Social Sciences</b>	
	• 47-958: Economining (Dokyun Lee, CMU)	<b>Fall 2017</b>
	• 90-906: Introduction to Econometric Theory (Edson Severnini, CMU)	<b>Spring 2017</b>
	• 90-908: Microeconomics (Brian Kovak, CMU)	<b>Fall 2016</b>
	<b>Statistics &amp; Machine Learning</b>	
	• 10-716: Advanced Machine Learning (Pradeep Ravikumar, CMU)	<b>Spring 2019</b>
	• 36-705: Intermediate Statistics (Larry Wasserman, CMU)	<b>Fall 2016</b>
	<b>Computer Science</b>	
	• CSE-506: Operating Systems (Michael Ferdman, Stony Brook University)	<b>Fall 2015</b>
	• CSE-532: Theory of Database Systems (Fusheng Wang, Stony Brook University)	<b>Fall 2015</b>
	• CSE-537: Artificial Intelligence (I.V. Ramakrishnan, Stony Brook University)	<b>Fall 2015</b>
	• AMCS-241: Probability and Random Processes (Mohammed-Slim Alouini, KAUST)	<b>Fall 2014</b>
	• CS-390: Computational Complexity (Antoine Vigneron, KAUST)	<b>Fall 2014</b>
	• CS-341: Advanced Topics in Data Management (Panos Kalnis, KAUST)	<b>Spring 2014</b>
	• CS-229: Machine Learning (Xiangliang Zhang, KAUST)	<b>Spring 2014</b>
	• CS-260: Design and Analysis of Algorithms (Mikhael Moshkov, KAUST)	<b>Fall 2013</b>
	• CS-240: Computing Systems and Concurrency (Hany Ramadan, KAUST)	<b>Fall 2013</b>
	• CS-220: Data Analytics (Xin Gao, KAUST)	<b>Fall 2013</b>
PROGRAMMING	• Analysis: Python (preferred)	
LANGUAGES	• Performance: C++ (preferred), Java (for distributed systems)	