Emaad Ahmed Manzoor

emaad@cmu.edu www.eyeshalfclosed.com {github,twitter}.com/emaadmanzoor

EDUCATION

Carnegie Mellon University, PA, USA

2016 - 2021*

Ph.D., Information Systems (H. John Heinz III College). Advisors: Dokyun Lee, George Chen.

Stony Brook University, NY, USA

 $2015 - 2016^1$

Ph.D., Computer Science. Advisor: Leman Akoglu.

King Abdullah University of Science and Technology, Saudi Arabia

2013 - 2015

M.S., Computer Science. Advisor: Panos Kalnis.

Thesis: Scheduling Broadcasts in a Network of Timelines.

Birla Institute of Technology and Science - Pilani (Goa Campus), India 2008 - 2012

Bachelor of Engineering (Honors), Computer Science.

Work in Progress

• Inferring Semantic Hierarchies from Human Curation Behavior.

Emaad Manzoor, Dhananjay Shrouty, Rui Li, Jure Leskovec.

To be submitted, 2019.

• Focused Concept Miner (FCM): Interpretable Deep Learning for Text Exploration.

Dokyun Lee*, Emaad Manzoor*, Zhaoqi Cheng* (*equal contribution).

Marketing Science (revise and resubmit).

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3304756

Publications

• XSTREAM: Outlier Detection in Feature-Evolving Data Streams.

Emaad Manzoor, Hemank Lamba, Leman Akoglu.

ACM SIGKDD 2018 (research track with short presentation, top 181/983 = 18.41%).

https://cmuxstream.github.io/

• RUSH! Targeted Time-limited Coupons via Purchase Forecasts.

Emaad Manzoor, Leman Akoglu.

ACM SIGKDD 2017 (applied data science track with poster, top 85/396 = 21.47%).

https://github.com/emaadmanzoor/rush/

• Fast Memory-Efficient Anomaly Detection in Streaming Heterogenous Graphs.

Emaad Manzoor, Sadegh M. Milajerdi, Leman Akoglu.

ACM SIGKDD 2016 (research track with long presentation, top 70/784 = 8.93%).

https://sbustreamspot.github.io/

PATENTS

• Scheduling Broadcasts in a Network of Timelines.

Emaad Ahmed Manzoor, Haewoon Kwak, Panos Kalnis.

Unpublished manuscript (https://arxiv.org/abs/1610.06052), 2015.

Patent filed in February, 2015 (https://patents.google.com/patent/W02016132332A1).

AWARDS

• Snap Inc. Research Fellowship Semi-finalist.

2019

• Marketing Science Institute Grant, co-PI (with Zhaoqi Chen and Dokyun Lee)

2018

• ACM SIGKDD Student Travel Award (\$3,050).

2016, 2017, 2018

2016

• Institute of Advanced Computational Science Young Writer's Award (\$500).

• Stony Brook University Special CS Department Chair Fellowship (\$8,000).

2015

• Worldwide Top 100 (of 1720 teams), IEEE Xtreme 8.0 Programming Competition.

2015

¹Incomplete, transferred.

Professional

Pinterest Labs, San Francisco. Research Intern.

Summer 2018

EXPERIENCE

Research on semantic hierarchies and graph embeddings. Advised by Rui Li and Jure Leskovec.

Max Planck Institute for Software Systems, Kaiserslautern. Research Intern. **Summer 2017** Research on stochastic optimal control. Advised by Manuel Gomez-Rodriguez.

Quantitative Engineering Design, San Francisco (remote). Research Intern. **Summer 2015** Research and development on streaming machine-learning. Advised by William Wu and Jiehua Chen.

Oregon State University, Corvallis (remote). Google Summer of Code Intern. **Summer 2014** Designed and developed a REST service to enable remote datacenter machine administration.

Yahoo!, Bangalore. Software Engineer.

Jul 2012 - Aug 2013

Developed a distributed streaming NLP system for trending-topic detection (Storm, Kafka, HBase).

Tachyon Technologies, Bangalore. Research Intern.

Summer 2012

Designed algorithms for automatic comic book digitization. Advised by Ram Prakash Hanumanthappa.

Yahoo!, Bangalore. Software Engineer Intern.

Fall 2011

Designed and developed a configuration system for trending-topic internationalization.

University of Massachusetts, Lowell (remote). Summer of Code Intern. Summer 2011 Designed and developed a Debian package building and maintenance pipeline on Launchpad.

Teaching

See http://www.eyeshalfclosed.com/teaching/ for teaching material and student evaluations.

• 46-891 Mining Unstructured Data (co-created with Dokyun Lee, CMU)

S19

• 95-865/94-775 Unstructured Data Analysis (George Chen, CMU).

F17, S18, F18, S19

• 95-813 Intermediate Databases (Jeremy Smith, CMU).

F17, F18

SELECTED Coursework

All completed courses listed were awarded grades A- or higher. Spring 2019 courses are ongoing.

Economics & Social Sciences

• 47-958: Economining (Dokyun Lee, CMU)

Fall 2017

• 90-906: Introduction to Econometric Theory (Edson Severnini, CMU)

Spring 2017

• 90-908: Microeconomics (Brian Kovak, CMU)

Fall 2016

Statistics & Machine Learning

•	10-716: Advanced	Machine	Learning	(Pradeep	Ravikumar,	CMU))
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Spring 2019

• 36-705: Intermediate Statistics (Larry Wasserman, CMU)

Fall 2016

Computer Science

• CSE-506: Operating Systems (Michael Ferdman, Stony Brook University	• C	CSE-506:	Operating System	s (Michael Ferdman.	Stony Brook J	University)
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Fall 2015

• CSE-537: Artificial Intelligence (I.V. Ramakrishnan, Stony Brook University)

Fall 2015

AMCS-241: Probability and Random Processes (Mohammed-Slim Alouini, KAUST)

Fall 2014

• CS-390: Computational Complexity (Antoine Vigneron, KAUST)

Fall 2014

• CS-341: Advanced Topics in Data Management (Panos Kalnis, KAUST)

Spring 2014 Spring 2014

• CS-229: Machine Learning (Xiangliang Zhang, KAUST) • CS-220: Data Analytics (Xin Gao, KAUST)

Fall 2013

Programming • Analysis: Python (preferred)

LANGUAGES

• Performance: C++ (preferred), Java (for distributed systems)