Emaad Ahmed Manzoor

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Education

King Abdullah University of Science and Technology **Aug 2013 – Now**
Master of Science, Computer Science

Birla Institute of Technology and Science - Pilani **Aug 2008 – May 2012**
Bachelor of Engineering (Honours), Computer Science

Professional Experience

Yahoo!, Bangalore, *Software Systems Engineer* **Jul 2012 – Aug 2013**

Primary member of the team building a distributed system for low-latency event detection from multiple parallel content streams. This system reduced event detection latency by 600%.

- Built adapters to enable data flow between the source message queues and core streaming system.
- Built components for streaming distributed counting of strings, n-grams and distinct words.
- Designed and evaluated storage schemes to minimize the duration of failure recovery from disk.
- Wrote a test framework to simulate and verify the combined streaming and persistence systems.

Yahoo!, Bangalore, *Software Systems Engineer Intern* **Jul – Dec, 2011**

- Reimplemented the event detection system to be centrally configurable and multi-threaded.
- Built a research prototype to detect search trends that are niche to certain geographic areas.
- Was offered a full-time position (offered to 3 of the 14 interns from my university).

Research Experience

Modeling Android Application Permissions for Malware Detection **Aug 2013 – Now**

Advised by Dr. Xiangliang Zhang, Machine Intelligence and Knowledge Engineering Lab, KAUST.

The project's goal is to characterize Android applications given only the permissions they request.

- Designing undirected hierarchical graphical models to infer Android application types.
- Applying variational and sampling methods for approximate inference of the posteriors.
- Evaluating model performance on the Android malware classification task.

Automatic Comic Book Restoration from Camera Images, **May – Jul, 2012**

Advised by Mr. Ram Prakash Hanumanthappa, CEO, Tachyon Technologies, Bangalore.

- Designed computer vision algorithms to digitize comic books from mobile camera images.
- Built an Android application wrapping this research up into a usable prototype.

Teaching Experience

Software Development for Portable Devices, Google-funded Teaching Assistant. **Jan – May, 2011**
MIT Indian Mobile Initiative, Student Mentor. **Jun – Jul, 2011**
Programming Languages and Compiler Construction, Teaching Assistant. **Jan – May, 2012**

Honours and Awards

King Abdullah University of Science and Technology Fellowship. **2013**
Erasmus Mundus LCT Masters Scholarship[1] (awarded to 4 international applicants). **2013**
Winner, Random Hacks of Kindness Bangalore. **2011**
MVHub Summer of Code, funded by Google and the University of Massachusetts, Lowell. **2011**
Consultancy Development Cell Fellowship, Ministry of Science and Technology of India. **2009**

Other Projects

The OpenIntents Android proximity sensor simulator. (code.google.com/p/openintents/source/detail?r=3280)
A tutorial at PyCon India 2012. (speakerdeck.com/emaadmanzoor/building-a-cluster-with-python-and-beanstalkd)
A tool to visualize graph algorithms on custom graphs, step-by-step. (emaadmanzoor.github.com/graphy)
A public transport initiative to OCR bus tickets and allot reward miles. (mybmtcmiles.com)

Programming Languages

Java (proficient). Python (experienced). C, Clojure, MATLAB, Perl, Ruby (novice).

[1] Turned this offer down, having already accepted the KAUST fellowship.