# Ayush Patwari

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## Education

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| May 2017 | MS(Thesis) in Computer Science, **Purdue University**, US | Gpa: 4.0/4.0 |
| May 2013 | B.Tech(Hons.) in CSE, **IIT Kharagpur**, India | Gpa: 9.09/10.0 |

## Work Experience

**Aug 2017 —** Software Engineer at Google Inc., US

*Current*
**Aug 2015** Graduate Research Assistant at DCSL Lab, Purdue University, US
*Detecting False Data in Crowd-Sourced Systems* | sklearn, nltk, flask, scrapy

- **Automated Fact-Checking** Using Natural Language Processing to automatically detect misleading statements in political campaigns.
- **Spam Detection in Web Forums** Modelled inter-relations between users, groups and threads and created a semi-supervised iterative framework to detect spam posts.
- **Spam Video Detection in Video Portals** Used supervised learning techniques to detect spam videos with misleading meta-data in Youtube achieving a F-score of 0.84.

**Jun 2016 - Aug 2016** Summer Intern at Lawrence Livermore National Laboratory, CA, US
*Understanding DRAM Errors in HPC Clusters* | python, sklearn, matplotlib

- Build a visualization tool to study spatial correlation of DRAM correctable memory errors in High Performance Computing clusters over different time slices.
- Define metrics for and used hypotheses testing to show that observed errors occur in groups across the physical layout and these are not due to a random distribution.

**Jul 2013 - Jul 2015** Software Engineer at Samsung R&D Institute, India
*Multi-Modal Sensor Data Analytics* | android sdk, c++, weka

- **Tennis Performance App** Developed a learning framework on streaming sensor data to allow comparison with experts and peers to improve skills and playing technique.
- **Indoor Floor Map Generation** Developed a system to generate indoor floor maps using a single smartphone, fusing acoustic signal processing and dead reckoning system.

**May 2012 - July 2012** Summer Intern at LCA Lab, EPFL, Switzerland
*Location Privacy Intrusion of Mobile Apps* | Qt sdk, html, js, css

Developed a web monitoring tool to analyze location access history of Qt applications in Nokia to determine the extent of privacy leaks.

## Publications & Patents

- Understanding the Spatial Characteristics of DRAM Errors in HPC Clusters, FTXS'17, HPDC, Washington DC
  Patwari, A., Laguna I., Schulz M. and Bagchi S.
- Efficient characterization of tennis shots and game analysis using wearable sensors data, SENSORS, 2015 IEEE
  Srivastava, R., **Patwari, A.**, Kumar, S., Mishra, G., Kaligounder, L., and Sinha P.
- Method and Device for Generating Data Representing Structure of Room
  **Patwari, A.**, Mishra, G., Srivastava, R., De, A., and Patkar, D. (United States Patent Application 20150347638)
- TennisTrac App for Samsung Galaxy devices for use with Gear watch (http://tinyurl.com/tennistraq)

## Programming Skills

Proficient: python, C, C++
Intermediate: JAVA, scala, sql, javascript, html
Tools: scikit-learn, flask, android sdk, weka, hadoop

## Graduate Coursework

Machine Learning/NLP, Data Mining
Parallel Computing, Fault Tolerant Design, Algorithms
Information Security, Compiler Design, Operating Systems

## Other Projects  https://github.com/patwaria

- Implemented paging support for the XINU operating system on the Intel architecture, OS Project, Fall 2015
- Stance Classification for Ideological debates, NLP Project, Spring 2016
- Parts-of-Speech Tagger for Tweets using Structured Perceptron and MEMM models, NLP Project, Spring 2016

- Meta-Search .Net Application for Academic Scholars and Citations, Opensoft Competition, IIT Kharagpur, 2013
- Study on Routing in Delay Tolerant Network using Omni-Directional Antennae, IIT Kharagpur, Dec-Jan 2011