

HEMANT SAXENA

CONTACT

241B Cedarbrae Avenue, Waterloo, ON

Email: h2saxena@uwaterloo.ca

Cell: +1-226-600-3902

<https://cs.uwaterloo.ca/~h2saxena/>

EDUCATION

University of Waterloo

September 2013 - present

M.Math (Thesis) in Computer Science

Advisor: Prof. Kenneth Salem

Current GPA: 88.5/100

Birla Institute of Technology and Science (BITS), Pilani, India

August 2008 - July 2012

M.Sc (Tech) in Information Systems

Overall GPA: 8.94/10 (ranked 3rd in class of 66 students)

EXPERIENCE

University of Waterloo

September 2013 - present

Research/Teaching Assistant

Waterloo, Canada

- Project (in progress): Exploiting edge networks for data driven web applications.

Zynga Games Network Inc.

July 2012 - July 2013

Associate Software Engineer

Bangalore, India

- Client and server side game development, and data management on Couchbase servers.

NetApp

January 2012 - June 2012

Intern

Bangalore, India

- Event notification mechanism for configuration changes on ONTAP operating system.

Memorial Univ. of Newfoundland

May 2011 - July 2011

Research Assistant

Newfoundland, Canada

- Privacy preserving cloud transactions.

CURRENT PROJECTS

Relational Edge Caching for Edge-Aware Web Applications

Jan 2014 - present

- Solving the problem of high network latency, while fetching dynamic content, for web applications.
- Building a system that partitions and replicates data across edge network such that web applications can read and update data at the edge servers.

Interactive Integrity Constraints (IC) discovery from unclean data

Oct 2014 - present

- Automatic IC discovery algorithms end up overfitting and its hard to set approximation ratio when the data is noisy.
- We chose to develop a hybrid human-machine approach that asks questions to humans within a given budget and discover ICs with desired accuracy.

CONFERENCE PRESENTATIONS

- Hemant Saxena, Kenneth Salem, "Relational Edge Caching for Edge-Aware Web Applications", Poster in SoCC'14, Nov 2014.

TECHNICAL STRENGTHS

Computer Languages	JAVA, C/C++, Python, shell-scripting, Perl
Web Development Languages/Tools	PHP, SQL, HTML, JavaScript
Miscellaneous Tools	LATEX, Git, R, Matlab
Operating Systems	Linux, Microsoft Windows

SCHOLASTIC ACHIEVEMENTS

- MITACS Globalink Fellowship *September 2013 - present*
- University of Waterloo Mathematics Graduate Experience Award *September 2013 - present*
- University of Waterloo Graduate Research Studentship *September 2013 - present*
- MITACS Globalink Summer Research Fellowship *May 2011 - August 2011*
- Indian Academy of Sciences, Summer Research Fellowship *2011*
(one of 60 recipients across India)

GRADUATE COURSEWORK

- Advanced Topics in Databases: Large Scale Data Management - Prof. Khuzaima Daudjee
- Advanced Topics in Computer Systems: Many-Core Operating Systems - Prof. Martin Karsten
- Graph-Theoretic Algorithms - Prof. Therese Biedl
- Advanced Topics in Databases: Data Quality - Prof. Ihab Ilyas

PAST PROJECTS

- Sampling from the repairs of denial constraints, in data cleaning context. (Jan 2014 - Apr 2014, University of Waterloo)
- Evaluation of shared libraries performance on NUMA machines. (Sept 2013 - Dec 2013, University of Waterloo)
- Schema advisor for NoSQL databases. (Sept 2013 - Dec 2013, University of Waterloo)
- Time series analysis of stock market data, a data mining project. (BITS-Pilani) (August 2011 - Dec 2011)
- FPGA implementation of face detection algorithms for UAVs. (CEERI Pilani) (Aug 2011 - Dec 2011)
- Applications of simulated annealing in black-box software testing. (BITS-Pilani) (Jan 2011 - June 2011)