

Xu Cui

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Permanent Address

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PERSONAL SUMMARY

- I am a Masters Candidate at Cheriton School of Computer Science, University of Waterloo under the supervision of Professor Bernard Wong and Professor Khuzaima Daudjee.
- My research interests include distributed systems, cloud storage systems and software defined networks.

SUMMARY OF QUALIFICATIONS

- 3 years' experience in designing, implementing, evaluating and fine-tuning large scale software systems
- Strong analytical skills; years of expertise in problem solving
- Strong programming skills in Java, C++, Python, Ruby, Scheme; expertise in MySQL, PostgreSQL and MongoDB; experience in Linux administration and Amazon Web Services
- Consistently recognized by supervisors/managers as a very systematic, competent and highly motivated individual
- Excellent verbal and written communication skills to achieve team goals; solid expertise in summarizing and presenting research to colleagues and supervisors; fluent reading and writing skills in Chinese
- Consistently able to deliver results under tight deadlines, highly motivated, and very systematic

EDUCATION

Candidate for MMath, David R. Cheriton School of Computer Science

University of Waterloo, Waterloo, Ontario

Sept/2013 – present

- GPA: 92.3/100
- Relevant Courses:
 - Cloud Computing and Software-Defined Networking
 - Large Scale Data Management
 - Mathematical Foundations of Computer Networking
 - Advanced Research Topics: Scripting Languages

Bachelor of Computer Science

University of Waterloo, Waterloo, Ontario

Jun 2013

- Major Average: 92.0/100
- Graduated with Distinction

RESEARCH EXPERIENCE

Research Assistant

University of Waterloo, Waterloo, Ontario

Aug/2013 - present

- Led the DataMagic Project, a cloud based data analytics system which collects, analyzes and visualizes data available from public sectors (e.g. Police/Fire Departments, Hydro etc.).
- Designed and implemented the prototypes of the DataMagic system in three different programming languages with colleagues. Co-designed a set of RESTful APIs which can provide unified, structured data to interested parties.
- Evaluated, designed and implemented the caching and scheduling algorithms of MicroFuge, a middleware which provides performance isolation in cloud environments, which improved MicroFuge's existing performance by more than 50%.
- Drove the MicroFuge project at full speed to achieve both high performance and quality standards under a tight deadline.
- Acquired valuable experience in system evaluation and tuning techniques;
- In charge of the setups and fine tuning of distributed development and testing environments on various cloud platforms from different providers.

Undergraduate Research Assistant

University of Waterloo, Waterloo, Ontario

Sept/2011 – Apr/2013

- Designed and implemented the fundamental natural language parsing engine of RSVP, a Natural Language Processing Engine created to answer questions in natural languages
- Engineered and built the data collection engine of RSVP used to provide structured data in response to a question
- Constructed and developed an Android Library for potential customers to utilize the Natural Language Processing Engine
- Gained experience in natural language processing techniques, data collection methods and database technologies.

TEACHING EXPERIENCE

Instructional Apprentice

University of Waterloo, Waterloo, Ontario

Jan/2014 - present

- Lead tutorials every week.
- Provide one to one help to students during office hours.

Teaching Assistant

University of Waterloo, Ontario

Sept/2013 - Present

- Mark assignments and written exams.

PUBLICATIONS

- Akshay K. Singh, **Xu Cui**, Benjamin Cassell, Bernard Wong, and Khuzaima Daudjee, "MicroFuge: A Middleware Approach to Providing Performance Isolation in Cloud Storage Systems", To appear in Proceedings of the International Conference on Distributed Computing Systems (ICDCS), Madrid, Spain, June 2014.

AWARDS and SCHOLARSHIPS

- David R. Cheriton Graduate Scholarship, University of Waterloo, 2013 - 2015.
- Mathematics Graduate Experience Award, University of Waterloo, 2013- 2015.