

# Christopher L. Choi

## Personal Details:

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Github account: <http://github.com/chutsu>

Personal website: <http://chutsu.github.io/>

Citizenship: United Kingdom, Canada and Hong Kong

## Skills:

*General Programming Languages:* Java, Python, C, Bash

*Software Architecture Practices:* 4+1 Viewpoint set, UML, ADLs, ATAM

*Web Technologies:* HTML5, CSS, PHP, Javascript

*Other Software Tools:* Git, Vim, Eclipse, Ant, Ivy, GNU make, R, Matlab

*Operating Systems:* Linux, Mac, Windows

*Database Systems:* MongoDB, Couchbase, PostgreSQL, MySQL

## Education:

**University of St. Andrews**

**May 2013 - Present**

PhD Computer Science

**University of St. Andrews**

**September 2011 - August 2012**

MSc Advanced Computer Science (Obtained Distinction in Dissertation)

*Modules:* Advanced Software Engineering, Advanced A.I., Advanced Network and Distributed Systems, Object Oriented Programming, Software Architecture, Language Perception, Web Technologies.

**Heriot-Watt University**

**September 2007 - June 2011**

BSc Computational Physics (Obtained 2:1)

*Modules:* Computational Project, Remote Sensing and Energy Studies, Applied Physics, Quantum Theory and Spectroscopy, Physical Mathematics

## Research Experience:

**Research Assistant at University of St Andrews**

**September 2012 - May 2013 (9 months)**

Funded by JISC (Joint Information Systems Committee), Dr Alex Voss was one of the collaborators who developed an innovative system for social media analysis, combining powerful, cloud-based computational search and NLP tools to explore and structure large volumes of data, with more established methods for media analysis.

My work for Dr Alex Voss involved surveying NoSQL databases for the innovative system, in particular MongoDB and CouchBase were reviewed, with experiments conducted to compare the two systems. I was also fortunate enough to be able to present my work at the International Symposium on Grids and Clouds (ISGC) in Taipei, Taiwan.

### **Physics Summer Internship at Heriot-Watt University**

**July 2009 - September 2009 (3 months)**

Worked with Dr S.Gattenloehner, who was researching on the effects of different amplitudes of electric current through the structure of graphene under different conditions. A simple program was created that would allow Dr S.Gattenloehner to upload, download files, and pass specific command line arguments, across a number of Linux machines to perform trivial parallelism of the physics simulation program Dr S.Gattenloehner created.

### **Bioinformatics Summer Internship at University of Edinburgh**

**June 2009 - September 2009 (4 months)**

Dr T.Waibel was identifying the key gene regulators in Taxol bio-synthesis which is found in Yew trees. Taxol also known as Paclitaxel, is one of the major chemotherapy drug used to treat patients with lung, ovarian, breast, head and neck cancer today. My responsibility was to help Dr T.Waibel analyze his sequenced data.

### **Physics Summer Internship at Queen Mary, University of London**

**June 2008 - August 2008 (3 months)**

Two projects were completed. The first project involved modifying a computer program called Rivetgun to work under BOINC. The work required C/C++ programming and system administration under Debian Linux. In the second project, I was responsible for building temperature sensors to monitor the HTC (High Throughput Cluster) at Queen Mary. A Perl and Python script were written to obtain the temperature values, and to communicate with a web based system monitoring software called Zabbix.

### **Other Experiences and Achievements:**

- 2011** Competed in Head races in Quads and 8s with Heriot Watt Rowing Club
- 2008** Participated in BUCS Sailing (Fleet Racing - FireFly Class) with Heriot Watt Sailing Club.
- 2007** Participated in BUSA Sprint Triathlon with Loughborough Students Triathlon Club
- 2005** Tall ship cruise, from Oslo, Norway to Aberdeen, Scotland.
- 2005** Duke of Edinburgh Backpacking Gold Expedition.
- 2005** Ran 120km over 3 weeks for charity in memory of Samuel Newton who died at school of Epilepsy.
- 2004** ID Tech Camp - Programming College Prep, Stanford University, San Francisco, USA. Learned to program in C++.
- 2003** Aviation Challenge Summer camp, Huntsville AL, USA.
- 2003** Space Camp, Huntsville AL, USA.
- 2003** RAF Boot Camp, Cosford RAF Airbase, UK. Awarded Best Cadet
- 2003** Participated in a 24 hour sailing competition.
- 1997** Swam a distance of 5km in one session at age 9.

### **Referees:**

#### **Dr Alex Voss**

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#### **Dr Tom Kelsey**

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