

# PHILIP MARK

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## EDUCATION

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**M.A.Sc. Electrical & Computer Engineering** *2012 – 2014*  
*University of British Columbia, Vancouver, BC*  
Thesis: “[Ethernet over Light](#)” (Supervisor: Dr. Lutz Lampe)

**B.Eng. Computer Engineering** *2007 – 2011*  
*McGill University, Montreal, QC*

## EXPERIENCE

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**Software Developer Intern, Ericsson, Montreal, QC** *Jan – Aug 2012*

- ◊ Developed functionality for a SIP gateway service in Java
- ◊ Implemented a Javascript library and HTML5 app for WebRTC (video conferencing)

**NSERC USRA Researcher, McGill University, Montreal, QC** *Summer 2011*

- ◊ Assisted in the investigation and implementation of a novel algorithm for anomaly detection in computer networks using Matlab (see [Publications](#))

**Cellular Stack Software Developer Intern, Blackberry Limited, Waterloo, ON** *Winter 2011*

- ◊ Developed new features in embedded C for the L1 control layer of the LTE/4G protocol stack (Cellular Technologies group)

**Driver Software Developer Intern, Blackberry Limited, Waterloo, ON** *Summer 2010*

- ◊ Developed USB driver code in C and desktop tools in C++ for the USB team (Operating Systems group)

## SKILLS

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**Programming:** C, C++, Java, MATLAB, Javascript/jQuery, HTML5/CSS, Python, VHDL, ARM Assembly, MIPS Assembly, L<sup>A</sup>T<sub>E</sub>X

**Selected Technologies:** Git, Perforce, Visual Studios, Eclipse, Notepad++, NetBeans, Wireshark, JMeter, cURL, PSPICE, LogicWorks, Altera Quartus & Modelsim, MODx, Wordpress

## PUBLICATIONS

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Z. Yao, **P. Mark**, M. Rabbat, “[Anomaly Detection using Proximity Graph and PageRank Algorithm](#)”, *IEEE Transactions on Information Forensics and Security*, vol. 7, no 4, pp. 1288-1300, August 2012.

## AWARDS AND HONORS

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**NSERC CGS M Postgraduate Scholarship (\$17,500)**, Natural Sciences and Engineering Research Council of Canada (held at University of British Columbia) *2013 – 2014*

**Research Assistantship (\$8,000)**, University of British Columbia, Department of Electrical and Computer Engineering (Dr. Lutz Lampe) *2013 – 2014*

**Graduate Support Initiative Award (\$5,000)**, University of British Columbia, Faculty of Graduate Studies *2012*

**Research Assistantship (\$16,500)**, University of British Columbia, Department of Electrical and Computer Engineering (Dr. Lutz Lampe) *2012 – 2013*

**NSERC Undergraduate Summer Research Award (\$5,625)**, Natural Sciences and Engineering Research Council of Canada (held at McGill University) *Summer 2011*

## VOLUNTEERING AND EXTRA-CURRICULAR ACTIVITIES

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**Flowerbowl 2014**, Event volunteer *June 7, 2014*

**Vancouver Ultimate League**, Captain of *Floppy Discs* ultimate team *Summer 2013, 2014*

**UBC Mafia Club**, Club executive (special events organizer) *2013 – 2014*

**IEEE SmartGridComm 2013**, Event volunteer *Oct 22, 2013*

**UBC Graduate Student Society**, New graduate student orientation events volunteer *Aug 29 – 30, 2013*

**Canadian Ultimate Championship 2013**, Scorekeeping volunteer *Aug 14, 2013*

**Vancouver Ultimate League**, Merchandise sale volunteer *June 8, 2013*

**Technophilic Magazine**, Web developer and contributor for an undergraduate student technology magazine at McGill University (<http://www.technophilicmag.com>) *2009 – 2011*

**End Poverty Now**, Web developer for a non-profit organization aimed at fighting poverty through community-led initiatives (<http://www.endpovertynow.ca>) *2009 – 2010*

## HOBBIES AND INTERESTS

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Personal: ultimate, hockey, tennis, backcountry snowboarding (AST-1 certified)

Research: telecommunications, protocol design