

# PHILIP MARK

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## EDUCATION

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- M.A.Sc Electrical & Computer Engineering — Adviser: Dr. Lutz Lampe** 2012 – (2014)  
*University of British Columbia*, Vancouver, BC  
Thesis: “Ethernet over Light”
- B.Eng. Computer Engineering** 2007 – 2011  
*McGill University*, Montreal, QC

## CAREER HISTORY

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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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<b>BC Ultimate Society Flowerbowl 2014</b> , Event volunteer	<i>June 7, 2014</i>
<b>Vancouver Ultimate League</b> , Captain of <i>Floppy Discs</i> ultimate team	<i>Summer 2014, 2013</i>
<b>UBC Mafia Club</b> , Club executive (special events organizer)	<i>2013 – 2014</i>
<b>IEEE SmartGridComm 2013</b> , Event volunteer	<i>Oct 22, 2013</i>
<b>UBC Graduate Student Society</b> , New graduate student orientation events volunteer	<i>Aug 29 – 30, 2013</i>
<b>Canadian Ultimate Championship 2013</b> , Scorekeeping volunteer	<i>Aug 14, 2013</i>
<b>Vancouver Ultimate League</b> , Merchandise sale volunteer	<i>June 8, 2013</i>
<b>Technophilic Magazine</b> , Web developer and contributor for an undergraduate student technology magazine at McGill University ( <a href="http://www.technophilicmag.com">http://www.technophilicmag.com</a> )	<i>2009 – 2011</i>
<b>End Poverty Now</b> , Web developer for a non-profit organization aimed at fighting poverty through community-led initiatives ( <a href="http://www.endpovertynow.ca">http://www.endpovertynow.ca</a> )	<i>2009 – 2010</i>

## HOBBIES AND INTERESTS

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Personal: ultimate, hockey, backcountry splitboarding, tennis  
Research: telecommunications, protocol design