Philip Mark

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Education

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

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 section

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

Programming: C, C++, Java, MATLAB, Javascript/jQuery, HTML5/CSS, Python, VHDL (Altera Quartus & Modelsim), ARM Assembly, MIPS Assembly, LaTeX

Selected Technologies: Perforce, Git, Wireshark, JMeter, cURL, PSPICE, LogicWorks, Visual Studios, Eclipse, Notepad++, NetBeans, MODx, Wordpress

Publications

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

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

Flowerbowl 2014, Volunteering   *June 7, 2014*

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

UBC Mafia Club, Club executive (Event Organizer)   *2013 – 2014*

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

UBC Graduate Student Society, Graduate student orientation volunteering   *Aug 29 – 30, 2013*

Canadian Ultimate Championship (CUC) 2013, Scorekeeping   *Aug 14, 2013*

Vancouver Ultimate League, Volunteering (merchandise sale)   *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

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