

# RAJSIMMAN RAVICHANDIRAN

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## **PROFILE STATEMENT**

Dedicated new graduate with a strong passion for software development along with proven industry experience; proficient interpersonal skills for client relationships and ability to work well in teams and individually

## **EDUCATION**

**Bachelor of Applied Science**, University of Toronto (U of T) 2009-2014  
Major in Electrical Engineering with 1 year Professional Year Experience (PEY)

- Final year GPA: 3.51, Dean's List

## **TECHNICAL SKILLS**

- **Programming:** Java, Python, C/C++, Shell Scripting, SQL, HTML, CSS, PHP, JavaScript
- **Operating Systems:** Linux (Ubuntu, RedHat) and Windows
- **Applications:** AWS EC2, Git, TortoiseSVN, MySQL, LDAP, Selenium, Redmine
- **Design Tools:** Eclipse, Matlab/Simulink, Wireshark, AutoCAD, Quartus II, PSPICE
- **Laboratory Equipment:** Cisco IOS, Spectrum Analyzer, Oscilloscope, Arbitrary Signal Generator

## **RELEVANT ENGINEERING EXPERIENCE**

**Research Assistant**, Smart Applications on Virtual Infrastructure (SAVI) Network Project,  
U of T May 2014-Present

- Actively worked on a national distributed application testbed, which adopts the Infrastructure as a Service (IaaS) cloud-service model, to provide a platform for creating and delivering future internet applications and architectures
- Focused on extending the capabilities of the monitoring and measurement services of open-source cloud computing platform, OpenStack (Ceilometer) deployed on testbed
- Assisted in building and installing servers; installing software for cloud management on testbed

**Software Developer Intern**, Canada Health Infoway, Toronto (1 year PEY) 2012-2013

- Designed front end using Bootstrap framework along with HTML, CSS and JavaScript
- Developed backend using PHP and wrote procedures in MySQL database and LDAP directories to process and store data
- Collaborated with software vendors for coordinated projects and obtained exposure to the Scrum Agile software development framework
- Performed regression, sanity and cross-browser testing to resolve bugs on web browsers
- Tracked errors/bugs using Redmine project management tool and also submitted bug reports to inform other software developers about flaws
- Provided technical support to clients and co-workers having issues with the system

## **COURSES AND PROJECTS**

**Video streaming on the Edge**, SAVI Design Challenge, U of T August 2014

- In a team of 4, created an application that connects video content publishers on SAVI cloud platform to subscribers interested in streaming the content
- Utilized Twitter social platform to communicate between the publisher and subscriber
- Incorporated stream processing to filter millions of real-time tweets and find both publishers and subscribers
- Built application on SAVI Testbed in 3 days, won the SAVI Design Challenge

**Team member**, Digital Acquisition System for Intravascular Ultrasound (IVUS) and Photoacoustic (IVPA) Imaging, U of T 2013-2014

- In a team of 3, developed a digital acquisition system for medical IVUS/IVPA applications for Sunnybrook Hospital
- Constructed image processing routines (in Matlab and Python) to remove noise components and enhance the image signal
- Implemented the serial link communication between the Field Programmable Gate Array (FPGA) and the PC (on software side) using Python
- Devised a custom Graphical User Interface (GUI) in Python using the PyQt4 toolkit

**Internetworking**, Electrical Engineering, U of T 2013

- Familiarized with TCP/IP Protocol Architecture, packet switching networks and data link layer protocols (Ethernet and Point-to-Point)
- Acquainted with gateway protocols including EGP (such as BGP) and IGP (such as RIP, and OSPF)
- Used Cisco IOS, routers, ethernet hubs, switches to setup networks and used Wireshark to capture packets to validate and verify packet information on those networks
- Analyzed and resolved network connection errors using Wireshark and network tools such as traceroute and ping

## **EMPLOYMENT EXPERIENCE**

**Counsellor, Da Vinci Engineering Enrichment Program (DEEP)**, U of T Summer 2011

- Facilitated student registration for each week during the summer academy
- Chaperoned DEEP trips or excursions
- Clarified concepts to students in courses such as Introduction to Micro-controllers and Introduction to Electrical Engineering
- Guided students during laboratory experiments to help them develop intuition and debugging skills

## **INTERESTS:**

Playing chess and organized team sports including Soccer, Basketball and Badminton; learning and building simple Raspberry Pi projects; film (including documentaries)

**References Available Upon Request**