# **Andrew Smith**

Markham, Ontario

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#### **SKILLS & EXPERTISE**

#### **Communication skills:**

- Present a product or idea to stakeholders or a group
- Listen
- Manage teams of employees, contractors, consultants, and partners
- Understand written application/system specifications and standards documents
- Understand relevant parts of other programmers' code
- Write progress, status and completion reports; reference material; short, specific and clear guidelines
- Work effectively with different personalities
- Facilitate teamwork

### **Programming languages:**

• C, C++, Java, Python; Perl, Bash, Sed, Awk; PHP, JavaScript, C#, Objective C, etc.

### Libraries and tools:

- Glibc, Glib, GDK, GTK2, libxml2, gettext, wxWidgets, DirectX, OpenSSL, NSPR, libpng, Win32 API, Android, Mozilla, iOS, etc.
- Git, SVN, GDB, Make, Vmware, Visual Studio, Eclipse, Xcode, GNU Autotools, Perforce, etc.
- MySQL, AJAX

### RELEVANT EMPLOYMENT HISTORY

### **Professor and Research Coordinator (Full time)**

September 2013 - Present

Seneca College

Toronto, Ontario

- Led research project about the use of personal medical devices via bluetooth and integration of collected data with a Personal Health Record. Led research project about automation of setup and control of an Open Stack cloud. Led research with Creative Commons about fingerprinting images for licence identification purposes. Led research project with engineering.com to improve advertising effectiveness via better client statistics.
- Redeveloped an introductory course about Linux system administration. Redeveloped an advanced course about Linux server administration. Developed an introductory Python programming course for system/network administrators.
- Worked with Chair to develop two cross-institution co-delivered programs with Canadore College.
- Maintained the school's Mediawiki used for many course materials.
- Built a custom Live Linux distribution to run from USB sticks and provide reliable persistent storage.
- Participated in LinuxCon (2016), World Conference on Online Learning (2017).

### **Professor (Partial Load)**

December 2011 - August 2013

Seneca College

Toronto, Ontario

• Redeveloped and taught degree and diploma versions of a multimedia technologies course, taught an introductory Linux course and a Linux administration course.

# **Senior Software Engineer**

June 2011 - October 2011

SurfEasy

Toronto, Ontario

• Designed and implemented Windows/Mac client-side libraries and user-friendly multithreaded software for secure communication with hardware and the cloud using custom firmware, Mozilla, and OpenSSL.

### **Senior Software Engineer**

June 2010 - June 2011

**Flextronics** 

Burlington, Ontario

• Created a Debian-based embedded Linux build system, designed and implemented modifications to the application lifecycle management system. Android framework improvements and performance optimizations.

# **Software Engineer**

January 2008 - June 2010

IBM Canada

Markham, Ontario

• Updated file sharing services software to work on new platform, build engineering, engineer and team enablement, successful exploratory projects.

# **Professor (Part Time)**

January 2009 - May 2009

Seneca College

Toronto, Ontario

• Taught a 5th semester Data Structures and Algorithms course (DSA555).

### Software Developer and Research Assistant

January 2008 - December 2009 Seneca College

Toronto, Ontario

• Participated in creating a JavaScript library for the Canvas3D technology. This project later contributed to the development of WebGL.

## **Platform Engineer**

January 2007 - December 2007 Mozilla Corporation

Toronto, Ontario

• Wrote Animated PNG specification and implemented it as a patch to libpng. Modified the Mozilla framework to add support for that technology. Implemented the CSS3 border-image property into the Mozilla framework.

#### **Programmer**

Summer 2006

STRIKE Technologies

Toronto, Ontario

• Created the interface (parallel port and USB communication) between a next generation input device and higher-level software such as Firefox that would use it.

# **Technical Support Representative**

Summer 2005 Easter Seals Toronto, Ontario

• Provided internal technical support for computers, printers, networks, and software on a medium-sized Active Directory network.

### **Assistant Administrative Specialist**

January 2002 - July 2002

IBM Canada

Markham, Ontario

• Inspected, repaired and upgraded used IBM laptops and desktops. Automated manual tasks by writing scripts that followed IT and physical security guidelines.

#### **VOLUNTEER EXPERIENCE**

### Videographer - Toronto Leaside Wildcats Hockey Teams

2013 - 2016

OWHL, Total Female Hockey Ontario

• Filmed hockey games for Bantam, Midget, and Junior Wildcats girls hockey teams.

# **Carpenter - Toronto Leaside Jurior Wildcats Hockey Team**

Summer 2016

OWHL, Total Female Hockey Toronto, Ontario

• Helped design and build the custom dressing room, coaches' room, and lounge for the Junior Wildcats girls hockey team.

# Judge - Toronto Science Fair

April 2015

**UofT** 

Scarborough, Ontario

• Helped judge entries to the Toronto Science Fair (K-12).

### Maintainer / Lead Programmer - Everyone's Timetable

2014 - Present

Seneca College, Hobby

Toronto, Ontario

• Implemented an Android application with a server backend and REST API for croud-sourced timetable sharing.

### **Lead Programmer - Open Source Translation Database**

2012

Hobby

Markham, Ontario

• Developed an online service to collect translated strings from open source software and use those strings to create new translations in other open source software.

### Highschool Outreach Helper/Organizer

May 2012

Seneca College

Toronto, Ontario

• Helped with organizing and running a Seneca ICT highschool outreach event for grade 10 girls to encourage them to enter the IT industry.

### Maintainer / Lead Programmer - ISO Master

June 2005 - Present

Seneca College, Hobby

Vaughan, Ontario

• Implemented the ISO9660, RockRidge, Joliet and El Torito standards in a reusable open-source library. Made easy to use GUI for editing ISO files. Fostered a community of contributors (packaging, translations and testing). Project praised by Linus Torvalds.

### Maintainer / Lead Programmer - Asunder

July 2007 - Present

Hobby

Vaughan, Ontario

• Fixed bugs and usability problems in multi-threaded application, created a large community around an abandoned open source project.

#### **Conference Presenter**

Fall 2009

Seneca College FSOSS

Toronto, Ontario

• Participated in panel discussion (moderated by Mark Surman) on student involvement and success in open source software.

# Organizer, Linux/Windows Installer

2003 - 2008 (3 times a year)

Seneca College Install Fests

Toronto, Ontario

• Installed and configured Linux and Windows on students' computers. Assisted in promotion and organization of the events.

# Project Leader / Programmer - Seneca Freedom Toaster

December 2006 - April 2007

Seneca College

Toronto, Ontario

 Secured funding and cooperation among several departments for building a kiosk to dispense open source software. Project completed within budget and ahead of the deadline.

### **Student Mentor**

Fall 2006

Seneca College SMILE

Toronto, Ontario

Helped a first/second semester student adjust to college expectations.

### Long range wireless, Linux Installer

Summer 2006

George S. Henry Academy

Toronto, Ontario

• Helped set up hardware and software for long range (4.5km) WiFi link, two labs (hardware and software) in LTSP configuration.

### **Programmer - PASCO Scientific Project**

Winter 2003 - Winter 2004

Seneca College Linux Club

Toronto, Ontario

• Created an open source access library (communication over serial port) for the Pasco Scientific SW500i data collecting device.

### Instructor

Summer 2003

Cabbagetown Youth Centre Toronto, Ontario

• Instructed mature students in computer setup and repair.

### **Education**

2011 - Master of Science in Information Technology, with distinction - University of Liverpool

2007 - Bachelor of Applied Technology - Software Development - Seneca College

2001 - A+ Certified Professional - Scarborough Training Centre

# **Languages**

Fluent English and Russian, formerly fluent Romanian, basic French

References: Available upon request