# ISAAC GOOD

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#### **EDUCATION**

## University of Toronto, BASc, Engineering

2005 - 2009

Key courses: Computer Programming, Algorithms, Data Structures and Languages (A+); Communication and Design I & II (A- & A+); Operating Systems (A); Algorithms and Data Structures (A+); Introduction to Databases (A); Compilers and Interpreters (A+); Computer Systems Programming (A+); Computer Networks (A); Computer Security (A); Parallel Programming (A); Optimizing Compilers (A-)

GPA: 3.08

#### **SKILLS**

Languages most proficient to familiar: Perl, shell scripting (bash, sh),

C, C++, DB2, MySQL, sqlite, Python, Java, LATEX

Technical tools awk, sed, git, svn, GNU coreutils, GNU Linux, UNIX, Makefile UNIX, Linux, Windows, PalmOS, Blackberry, J2ME mobile devices

Personal skills Strong oral and written communication;

organized, detail oriented, motivated, fast to learn and adapt

#### **EXPERIENCE**

Google Inc Apr 2013 - Present

Site Reliability Engineer - Spanner

Mountain View, CA

- · Responsible for availability, uptime and health of Spanner
- · Part of the on call rotation to own any production issues or emergencies
- · Developed and documented best practices for customer data loading
- · Designed and coded (Python) various components of Spanner's change automation
- · Mentoring three new Google SREs
- · Own the SRE side of software release deployment and automation
- · Scoped out and planned complex service change deployments
- · Helped deploy various Spanner features and bug fixes

## **OANDA** Corporation

Software Developer

Jan 2012 - Jan 2013

Toronto, ON

- · Created new and maintained old scripts used to report on the state of our system (Perl)
- · Collaborated with other teams to improve tools they maintain
- · Added functionality into large, critical system components (C++)
- · Worked with project managers and indirectly clients to meet client requirements

#### University of Toronto

Jan 2012 - Present

System Administrator (Part Time)

Toronto, ON

- $\cdot$  Manage users and resources
- · Maintain servers, keeping them up to date, dealing with failures, security breaches
- · Install and update hardware as required

#### University of Toronto

Jul 2010 - Dec 2011 Toronto, ON

Graduate Student

- · Researched botnet behaviour
- · Collected data related to domains and built identifying features
- · Implemented a classifier to determine if a domain is malicious using WEKA and a learning algorithm

## University of Toronto

Jul 2009 - Jul 2010

Graduate Student

Toronto, ON

- $\cdot$  Extended Forensix, a kernel module for secure system call logging
- · Studied approaches for defining and detecting similar traces of system calls for pruning purposes

## University of Toronto

Jul 2009 - Dec 2011

Assistant System Administrator

Toronto, ON

- · Administered 130 servers
- · Set up automated PXE installs
- · Managed users, automation and update tasks, packages, Apache Web Server, DHCP, NFS

## **National Benefit Authority**

May 2009 - Jul 2009

Software Developer

Toronto, ON

- · Added features to an MS Access DB frontend
- $\cdot$  Normalized the DB schema and ported data across schemas

OANDA May 2008 - Aug 2008

Software Developer

Toronto, ON

- · Created a server application (C++) and a protocol as well as a web based interface (OOP Perl) to access it
- · Added features to existing code, extending an existing Perl script
- · Rewrote scripts to use a standard library, allowing easy and seamless upgrading of many scripts
- · Wrote applications that reuse existing company libraries, greatly reducing development cycle time
- · Learned to write object oriented Perl libraries and gained experience writing very OOP C++ code

### Research In Motion

May 2007 - Aug 2007

 $Software\ Developer$ 

Toronto, ON

- $\cdot$  Designed a prototype and implemented a web application to access administrative settings on a server using SOAP-based HTTP communication
- · Debugged existing code and tested new code, ensuring the code will work in the future and save the company time and money having to deal with broken code later on
- $\cdot$  Distributed a new version of a tool for use by multiple teams ensuring everyone involved was using and familiarizing themselves with the latest tools
- · Provided technical support to products users, freeing them up from having to spend time figuring out what they had trouble with and allowing them to spend the time productively
- · Wrote user friendly instructions on use of the new application, allowing the application to enter use quicker than it otherwise would have taken
- · Reported weekly on application status to two development groups, helping them keep on schedule

#### ACADEMIC PROJECTS

### University of Toronto

2005 - 2010

Student

Toronto, ON

- · Made HTTP server, UDP based file-transfer client/server, IRC-esque client/server all in C
- · Created a C-like compiler using bison and flex

- · Optimized gcc intermediate output files
- · Implemented malloc/realloc/free in C
- · Wrote parts of a multithreading OS

## INDEPENDENT PROJECTS

- · pacman Contributed patches to the Archlinux package manager, pacman, making use of the newer features of bash
- $\cdot$   $\mathbf{newsbeuter}$  Added features as well as debugged and patched bugs in the neurses RSS client, newsbeuter
- · **irssi** Wrote several scripts to extend the neurses IRC client, irssi, and was added as a contributor to the Stalker.pl script
- · More... of my coding and projects are available via my website, isaacgood.com