

# ISAAC GOOD

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isaacgood.com

## EDUCATION

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### University of Toronto, BAsC, Engineers

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

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### Languages

most proficient to familiar: Perl, shell scripting (bash, sh),  
C, C++, DB2, MySQL, sqlite, Python, Java, L<sup>A</sup>T<sub>E</sub>X

### Technical tools

awk, sed, CSV (git, svn), GNU coreutils, GNU Linux, UNIX, Makefile

### Targeted platforms

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

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### OANDA Corporation

Apr 2012 - Jan 2013

*Software Developer*

*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

### OANDA Corporation

Jan 2012 - Mar 2012

*Integrator*

*Toronto, ON*

- Deployed software packages in a testing environment
- Detected and stopped bugs before software reached production machines
- Learned the software system on a broad, high level
- Interacted and collaborated with members of many other teams across

### University of Toronto

Jan 2012 - Present

*System Administrator (Part Time)*

*Toronto, ON*

- 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

*Graduate Student*

*Toronto, ON*

- 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***Graduate Student*

Jul 2009 - Jul 2010

*Toronto, ON*

- 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***Assistant System Administrator*

Jul 2009 - Dec 2011

*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***Software Developer*

May 2009 - Jul 2009

*Toronto, ON*

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

**OANDA***Software Developer*

May 2008 - Aug 2008

*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***Software Developer*

May 2007 - Aug 2007

*Toronto, ON*

- 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
- 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**

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**University of Toronto***Student*

2005 - 2010

*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

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- **pacman** Contributed patches to the Archlinux package manager, pacman, making use of the newer features of bash
- **newsbeuter** Added features as well as debugged and patched bugs in the ncurses RSS client, newsbeuter
- **irssi** Wrote several scripts to extend the ncurses 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](http://isaacgood.com)