

# Isaac Good

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## Education

### University of Toronto

*Bachelor of Applied Science and Engineering; GPA: 3.08*

Toronto,  
ON 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-)

## Skills

**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

### OANDA Corporation

*Software Developer*

Toronto, ON  
Apr 2012 -  
Present

- 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

*Integrator*

Toronto, ON  
Jan 2012 -  
Mar 2012

- 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

*System Administrator (Part Time)*

Toronto, ON  
Jan 2012 -  
Present

- 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

*Graduate Student*

Toronto, ON  
Jul 2010 -  
Dec 2011

- 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*

Toronto, ON  
Jul 2009 - Jul  
2010

- 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 Cluster Administrator*

Toronto, ON  
Jul 2009 -  
Dec 2011

- 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*

Toronto, ON  
 May 2009 -  
 Jul 2009

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

**OANDA**  
*Software Developer*

Toronto, ON  
 May 2008 -  
 Aug 2008

- 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*

Mississauga,  
 ON May  
 2007 - Aug  
 2007

- 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

**Artificial Perception Laboratory (APL)**  
*Team Lead*

Toronto, ON  
 May 2007 -  
 Aug 2007

- Conducted a broad range of projects to help further APLs research, advancing APLs position in the industry
- Led a team of five volunteer students, delivering instructions on a weekly basis and gathering progress reports
- Reported weekly to coordinator and other team leaders allowing the different teams to complement each other's productivity

**Rent Magic**  
*Software Developer*

Toronto, ON  
 May 2006 -  
 Aug 2006

- Designed and implemented a PDA based front end and server backend to interact with a MySQL database producing a valuable product for Rent Magic
- Designed API structure, application structure and UI layout, data protocol creating a framework that can be used in the future for many other projects
- Kept supervisor up to date on progress and impediments, keeping the project on schedule
- Tested application, ensuring maximum customer satisfaction

## Academic Projects

- 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
- **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)