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Arron Norwell

Education

Sept 2010 - Present
Masters - Computer Science, University of Toronto.
Group: Theory
Supervisor: Mike Molloy
GPA: A+
Thesis: A Threshold for Clusters in Real-World Random Networks
Seminar Talks Given: Balanced Graph Partition Problems; The Diameter of a Scale-Free Graph; A Threshold for Clusters in Real-World Random Networks

2006 - 2009
BS - Combined Honours, Mathematics and Computer Science, University of British Columbia.
GPA: 92
Courses: Computer Graphics, AI, Programming Languages, Software Engineering, Advanced Algorithms, Numerical Methods for PDEs, Compilers and Interpreters

Experience

May 2009 - Aug 2010
Software Development Engineer in Test, Microsoft.
Engineered tests for VOIP platform infrastructure used by large corporate clients to handle thousands of calls per day
Led project to Design and implement VOIP test framework for quick and flexible creation and execution of tests, with web UI for test reporting
Designed and implemented environment and tools for nightly builds of code and automated execution of tests against those builds
Ran and evaluated VOIP call performance. Designed VOIP performance test execution and graphing tools.
Interviewed potiential new hires.
Languages: Perl, C++, Javascript, Python, R

May 2008 - Aug 2008
Software Development Engineer in Test Intern, Tellme Networks.
Designed and implemented test automation framework for back-end VOIP system
Developed various automated test utilities
Worked in conjunction with developers to find, test, and resolve bugs
Languages: Perl, C++, Makefile

Sept 2010 - Present
Teaching Assistant, University of Toronto.
Acted as teaching assistant for second year data structures course and first year math and logic course
Gave tutorial lectures on selected topics to classes of students
Provided one-on-one office-hour guidance and instruction to students
Marked assignments and tests

Projects/Open Source

Graph.js (2011), *http://anorwell.com/graph*.
A Javascript Graph creation and visualization API using HTML 5 Canvas. Allows for flexible appearance and manipulation of graphs. The example app created using this API allows users to draw, save (either using HTML5 LocalStorage or to the cloud),and share their graphs.

Website (2010-11), *http://anorwell.com*.
My personal website is a minimally-featured blog tool written from scratch. Implemented feature-equivalently in two versions: Ajax with a Python/MySQL backend, and PHP. Supports upload, storage, and display of posts and music, as well as comments using Facebook's comment system.

Resume Maker (2011), *https://github.com/ANorwell/resume*.
A tool for creating multiple versions of a resume (or other document) by combining an Info XML file with template files that define the formatting to be applied to the info. For example, generate a latex and html version of the same resume. HTML/JS front-end to a perl backend. (This resume was automatically generated using this tool.)

English/Transliterated Persian Translator (2011), *http://anorwell.com/engping*.
A web (JS + HTML) tool for translating from English to Transliterated Persian, or vice versa, using various google language APIs.

Graphics (2009), *https://github.com/ANorwell/graphics*.
An implementation of some graphics algorithms and design patterns in C++ and using OpenGL/GLSL. Includes a surface subdivision algorithm that acting on an implementation of half-edge data structure, a scene manager, shader manager, quaternion camera, hit detection, and small shader library including a Phong shader. Compiles to a program with a game-like interface in which you can fly around graphics scenes.

Publications

2011 **A Threshold for Clusters in Real-World Random Networks**, *Arron Norwell*, To Be Submitted.

Skills

Languages	C, C++, Python, Perl, PHP, Scheme, Elisp, Javascript, R, Matlab
Technologies + Standards	XML + XPath, HTML + CSS2/3; HTTP, SIP, DNS; Code coverage and profiling tools; OpenGL API; Facebook API; JQuery + JQueryUI
Tools	Git, SVN, CVS, Unix toolchain, Emacs, Vi(m), VS2010, Wireshark , LaTeX