ALVIN TRAN

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SKILLS

- **Programming Languages:** C++, Java, C#, C, JavaScript, Python, Unix shell scripting
- **Web Development:** jQuery, Sass, CSS, Backbone.js, Knockout.js, Bootstrap.js, CherryPy, Tornado
- **Software Architecture Patterns:** Model-View-Controller (MVC), Model-View-ViewModel (MVVM)
- **Database Management Systems:** SQL (MySQL) and NOSQL (Redis, MongoDB)
- **Integrated Development Environments:** Eclipse, Visual Studio
- **Tools and Frameworks:** UML, Swing, SVN, Git, gdb, valgrind, Make, Vim, Jasmine.js, Chai.js, nose
- **Operating Systems:** Windows, Mac OS X, Linux (Ubuntu, Mint)

WORK EXPERIENCE

Software Developer, Hulu LLC, Seattle, WA, July 2014 - Present

- Working with the Content Services team, responsible for developing and maintaining Hulu's content metadata services

Software Development Engineer Intern, Amazon.com Inc., Seattle, WA, Aug. - Dec. 2013

- Worked on the AUI team, which works on Amazon's front-end framework
- Added a new UI component that is planned to be in a future release of AUI **(HTML, jQuery, Sass)**
- Collaborated with members of the Subscribe & Save team and UX designers to get mocks and specifications for the new UI component
- Used **Chai.js** for unit-testing the new component
- Learned more about designing with **cross-browser compatibility** and **web accessibility** in mind

Software Developer Intern, Hulu LLC, Los Angeles, CA, Jan. - April 2013

- Worked with the site team on Hulu's A/B Testing CMS and Hulu's site tray CMS
- Designed and developed the UI of A/B Testing CMS and site tray CMS **(Bootstrap.js, jQuery)**
- Provided **MVC**-like architecture to the A/B Testing CMS with **Backbone.js**
- Employed behavior-driven development for A/B Testing CMS using **Jasmine.js**
- Structured Hulu site tray CMS code with an **MVVM** architecture using **Knockout.js**

Software Developer Intern, Hulu LLC, Los Angeles, CA, May - Aug. 2012

- Worked with the site/core services team on social features
- Designed and developed social activity logging service **(Python, CherryPy, Gunicorn)**
- Designed architecture of a **Redis** data storage for storing social activity data
- Employed test-driven development throughout the social activity logging service project **(nose)**
- Migrated data from **MongoDB** and **MySQL** to **Redis**

Software Developer (Co-op), AppZero Software Inc., Ottawa, ON, May - Aug. 2011

- Created a GUI driver program for the AppZero third party management API (or 3rd party API) **(C++)**
- Expanded 3rd party API with methods like a Virtual Application Appliance (VAA) state getter **(C++)**
- Maintained the code for AppZero's flagship product, also called AppZero **(C++, C, C#)**
- Added ability for VAAs to have their event logs visible to the underlying operating system **(C++)**
- Improved the AppZero Administrative Console by adding a viewer for VAA error logs **(C#)**
- Used **SVN**, and later **Git**, to version-control AppZero's source code
- Assisted the Quality Assurance team in performing regression tests on the latest builds of AppZero

Web App Programmer (Co-op), Ontario Ministry of Education, Toronto, ON, Sept. - Dec. 2010

- Helped design other Ontario ministries' websites to improve their appearance **(HTML, JavaScript, CSS)**
- Documented use cases and test cases for the e-Nominations web tool **(UML)**
- Developed automated test scripts for the e-Nominations tool using **Visual Studio 2010 Test Tools (C#)**

EDUCATION

Bachelor of Software Engineering, University of Waterloo, Waterloo, ON, Canada, 2009 - 2014

PROJECTS

MadBirds, January 2012

- Project for User Interfaces class to create a copy of Angry Birds in **C++**
- Used X Window Programming (**X11**) to create the window and render the images for the game
- Compiled the project using **g++**, and debugged with **gdb**
- Developed a physics engine to handle collision detection and response in the game
- Created a level designer feature that functions through the user creating a text file to plot object points

Maze-Travelling Robot, May - August 2010

- Project for an Embedded Systems Software Design course to develop a program instructing a Lego Robot to travel through a maze to find a reflective object
- Assumed the role of **project leader** in a team of five members
- Planned weekly meetings discussing the designing and programming the robot
- Programmed and compiled the robot using **C#** and **Visual Studio 2008**
- Employed a binary tree concept to represent the nodes of the maze and tell the robot its current position

Paper Airplane Game, May - June 2008

- Mouse/keyboard-controlled **Java Applet** game
- Used Java's **Abstract Window Toolkit (AWT)** to render images
- Created graphical illusion of depth during gameplay by employing parallax scrolling
- Developed, compiled, and debugged project using the **Eclipse** IDE

AWARDS AND ACTIVITIES

- President's Scholarship, University of Waterloo, 2009 (for high school students averaging 90-94.9%)
- Residence Council Member, University of Waterloo, Sept. - Dec. 2009

INTERESTS

- Programming
- Video games
- Game development
- Basketball
- Lacrosse