CHARLES QI - 2A SOFTWARE ENGINEERING

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SKILLS

Languages: Java, C, C++, C#, Perl, Python, Go, SQL, HTML, CSS (SASS), XML, JavaScript
Tools: Bash, Eclipse, Git, Mercurial, SVN, CPAN, Django, JSON, Visual Studio
Skills: Version control, Pair programming, Object-Orientated design, Android development

WORK EXPERIENCE

Agriculture and Agri-Food Canada, *Software Developer*   April 2014 - August 2014
Ottawa, Ontario

- Developed programs that process large datasets in **Perl** for scientific research
- Worked efficiently with another co-op student to integrate sub-programs into pipelines
- Decreased running time of programs by implementing hashes and concurrency
- Employed BLAST for sequence alignment with bioinformatics databases (data mining)
- Co-authored a **licensed open-source software** under the Government of Canada: https://github.com/AAFC-MBB/AODP_releases/tree/master/AODP_v1.3.0
- Wrote and integrated several tools into Galaxy, a web-based platform, using XML

PROJECTS

UW Flow (JavaScript, HTML, CSS)   2014
- Contributed to the UI of *Flow*, a popular *open-source* web based course planning software for University of Waterloo students

A Dicey Story, *Role Playing Board Game* (C#)   2013
- Original story and setting with RPG elements (levels, power-ups, boss battles)
- Includes level designer for creating game boards

No Limit Texas Hold'em Poker (C#)   2013
- Object orientated design, with unit testing and MVC design pattern for UI
- Adaptive AI for different play styles and difficulty

EDUCATION

Bachelor of Software Engineering, *University of Waterloo*   Sept 2013 - Present
- President's Scholarship of Distinction

AWARDS

- Top 15% in the Euclid Mathematics Contest   May 2013
- School Champion in Fermat and Galois Mathematics Contest   February 2012
- 2nd place and Gold award at Kiwanis Music Festival for Piano   February 2011

EXTRACURRICULAR INTERESTS

- Participated in Model United Nations Conferences at New York and Montreal
- Certified Level 1 instructor of the Canadian Ski Instructors Alliance
- Performed piano for charities