Phone: 1 (236)-777-3579
Email: jiasenxu@gmail.com
LinkedIn: www.linkedin.com/in/jiasenxu
Github: https://github.com/JasonMrX

Jiasen XU

1201-488 Marine Dr SW
Vancouver, BC, V5X0C6

Education

- **University of Waterloo** — Waterloo, Canada
  M.Eng in Electrical & Computer Engineering (GPA: 94.8/100) — *Sept. 2014 - Sept. 2016*
  - Graduate Research Scholarship and Faculty of Engineering Award recipient
- **University of Science and Technology of China** — Hefei, China
  B.Eng in Electrical Engineering (GPA: 91.0/100) — *Sept. 2010 - Jul. 2014*
  - **National Scholarship** recipient; ranked **10/311** in the School of Information Technology

Experience

- **Cloud Developer** — Vancouver, Canada
  SAP Canada Inc. — *Nov. 2016 - Present*
  - Building SAP's next generation cloud-based Analytics platform – SAP BusinessObjects Cloud.
  - Ramped up within two weeks with no previous knowledge of Javascript or SAPUI5, and start feature ownership from elaborating design, implementation and unit/integration testing.
  - Optimized performance by introducing lazy loading design pattern – saved 20% of page loading time on average.
  - Greatly reduced code duplication by refactoring legacy code to be aligned with OO pattern.
- **Software Developer** — Kitchener, Canada
  ApplyBoard Inc., a Startup Incubated in Velocity Garage — *Jul. 2015 - Apr. 2016*
  - Join the dev team as the first developer besides CTO; actively contributed to ApplyBoard.com the main app as a full-stack Rails developer, which has 50k+ active user globally with 400k+ visits to date.
  - In charge of testing automation, Search Engine Optimization (SEO), database schema design and migration.
- **Research Assistant** — Waterloo, Canada
  University of Waterloo, Supervised by Professor En-Hui Yang — *Sep. 2014 - Apr. 2016*
  - Redesigned the quantizer in HEVC/H.265 to further improve video compression performance. Methodology is based on video content understanding using machine learning and statistical analysis tools.

Notable Projects

- **Enhance the Constanct Value Checker in the Checker Framework**
  Mentored by Professor Michael Ernst (MIT) and Professor Werner Dietl (Google) — *Jun. 2016 - Present*
  - The Checker Framework provides pluggable type checking for Java, which is built upon the Type Annotations compiler in Java 8 (JSR308). This project enhances the Constant Value Checker, one of the core checkers in the Checker Framework, which uses annotations to indicate the possible values of an expression at compile time.
  - By introducing the @IntRange annotation and a complex set of range maths, the flexitbility and the precision of the constant value checker are greatly improved, making it easier to catch potential runtime exceptions, e.g. *ArithmeticException* and *ArrayIndexOutOfBoundsException*, at compile time.
- **JPEG Image Decoder**
  Individual side project — *Jan. 2015 - Jun. 2015*
  - Implemented a console application that are able to decode nearly all JPEG images within a second.
  - Application can handle the prevalent Baseline/Progressive encoded images; multi-resolution decoding for Progressive encoded images is also supported.

Highlight of Skills

- **Programming:** Solid knowledge of algorithms and data structures; proficient in C/C++, Java, JavaScript, Ruby and Matlab; contributed to various large open source projects; started programming since 11 years old (using Pascal!).
- **Web Development:** Proficient in web development with Ruby on Rails, HTML, CSS and Javascript; Also experience with large-scale rich front-end JavaScript application with SAPUI5 and node.js.
- **Database System:** Proficient in SQL; Hands-on experience in both NoSQL and relational databases
- **Development Tools:** Familiar with VS/Matlab/Eclipse, Linux, vim, git/github/gerrit, ant/maven, travis/jenkins.
- **Research:** 3 years' research experience in data compression, image processing and information theory; Expert in JPEG compression standard; In-depth understanding of HEVC/H.265 video compression standard