Phone: 1 (519)-497-9391
Email: jiasenxu@gmail.com
LinkedIn: www.linkedin.com/in/jiasenxu

Jiasen XU

Education

- **University of Waterloo** — Waterloo, Canada
  Master of Applied Science in Electrical & Computer Engineering (GPA: 94.4/100) — *2014 - Present*
  - **Full financial support** granted for 2 years. Faculty of Engineering Award winner
  - Thesis: Quantizer Design in High Efficiency Video Compression (HEVC)
- **University of Science and Technology of China** — Hefei, China
  Bachelor of Engineering in Electrical Engineering (GPA: 91.0/100) — *2010 - 2014*
  - Directly admitted without National College Entrance Exam through **National Physics Olympiad**
  - **National Scholarship** winner. Ranked **10/311** in School of Information Technology

Highlight of Skills

- **Programming:** Solid knowledge of algorithm and data structures; Highly proficient in Matlab and C, Proficient in C++ and also familiar with Java, Ruby and shell scripting; Experienced with Pascal and BASIC; Contributed to 100K+ lines open source project and 4K+ lines individual project; Started programming since 11 years old
- **Web Development:** Proficient in web development with Ruby on Rails, HTML, CSS and Javascript; Also experienced in JSP, JDBC and Flex. Hands-on experience in more than 3 real-world projects
- **Database System:** Highly proficient in SQL; Hands-on experience in both Relational and NoSQL databases
- **Development Tools:** 5 years' experience in Visual Studio and MATLAB; Proficient in Unix like OS, vim editor, Git/Github and Netbeans; Also experienced in Eclipse and Altera QuartusII
- **Data Compression:** Solid background in data compression and information theory; Expert in current image compression standard JPEG; In-depth understanding of current video coding standard HEVC/H.265
- **Teamwork:** Self-motivated, hard working and dedicated to high quality, with proven team work skills and leadership

Experience

- **Software Developer (Part time)** — Kitchener, Canada
  ApplyBoard Inc., a Startup Incubated in Velocity Garage — *Jul. 2015 - Present*
  - Actively contributing to both front-end and back-end development, proposing and implementing new features
  - In charge of testing automation, Search Engine Optimization (SEO), database migration and management
  - Researching into a significant amount of open source web techniques to perfect the main web application
- **Research Assistant** — Waterloo, Canada
  University of Waterloo, Supervised by Professor En-Hui Yang — *Sep. 2014 - Present*
  - Redesign 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
  - Rewrite the HEVC test Module (HM16.5), an open source project with 100K+ lines of C++ code
- **Research Intern** — Perth, Australia
  University of Western Australia, Supervised by Professor Peter Munro — *Jul. 2013 - Sep. 2013*
  - Developed data analytic application for Optical Coherence Tomography(OCT) using Genetic Algorithm

Notable Projects

- **ApplyBoard**
  ***Full-stack Developer**. ApplyBoard.com Rails application* — *Jul. 2015 - Present*
  - ApplyBoard is the first online tool for students anywhere in the world to find a university or college in Canada or U.S. that best suits their needs and apply to it; Homepage: `https://www.applyboard.com`
- **Hybrid Database Based E-Commerce Web Application**
  Group leader. Advanced Database Systems course project — *Jan. 2015 - May. 2015*
  - An fully functional E-Commerce Java Web Application with back-end using both MySQL and MongoDB simultaneously; while MongoDB is used to process and store large volume of unstructured/semi-structured data (items, comments, users, etc), MySQL is adopted to handle transactions and structured data;
- **JPEG Image Decoder**
  Individual hobby project written in pure C — *Jan. 2015 - Jun. 2015*
  - A console application that are able to decode nearly all JPEG images (Baseline/Progressive) within a second