Jiasen XU

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Education

- **University of Waterloo** — Waterloo, Canada
  M.Eng in Electrical & Computer Engineering (GPA: 94.4/100) — Sept. 2014 - Sept. 2016
  - **Graduate Research Assistantship** granted for 2 years. Faculty of Engineering Award winner
  - Research focus: Image/Video compression standard; Image processing and analysis

- **University of Science and Technology of China** — Hefei, China
  B.Eng in Electrical Engineering (GPA: 91.0/100) — Sept. 2010 - Jul. 2014
  - Directly admitted without National College Entrance Exam through **National Physics Olympiad**
  - **National Scholarship** recipient. 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; 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 familiar with J2EE with JSP, Servlets and JDBC. 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:** Familiar with Visual Studio, MATLAB, Unix like OS, vim editor, Git/Github and Netbeans
- **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

Experience

- **Software Developer** — Kitchener, Canada
  ApplyBoard Inc., a Startup Incubated in Velocity Garage — Jul. 2015 - Present
  - ApplyBoard is an online application platform for students anywhere in the world to find the best university or college in Canada or the U.S. and apply to it. https://www.applyboard.com/demo
  - Actively contributing to the main app as a **full-stack** developer; #2 contributor on github, with 210+ commits and 13000+ LOC to date; also take part in training and code review for new hires
  - In charge of testing automation, Search Engine Optimization (SEO), database schema design and migration
  - Researching into a significant amount of open source web techniques to perfect the main web application
  - Having 50K+ active users globally with 400K+ visits to date; there have been 200+ students successfully getting accepted to colleges/universities in Canada or the U.S. with the help of our 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
  - Made contribution to the HEVC test Module (HM16.5), an open source project with 100K+ lines of C++ code

Notable Projects

- **MyMongo: E-Commerce Web App with Mysql and MongoDB**
  Group leader. Advanced Database Systems course project — Jan. 2015 - May. 2015
  - An E-Commerce J2EE application with backend connecting with MySQL and MongoDB simultaneously
  - Lead the project development, framework setup, backend coding, database schema design and UI/UX design
  - In charge of sprint planning, task distribution, and tutorials for new techniques adopted

- **JPEG Image Decoder**
  Individual side project — Jan. 2015 - Jun. 2015
  - Individually developed 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 displaying for Progressive encoded images is also provided