ALEXANDR MURASHKIN

University of Waterloo, MMath in Computer Science Candidate

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PROFESSIONAL KNOWLEDGE AND SKILLS

- Web-based development — Javascript, JQuery, Node.JS, Angular.JS, Zend, PHP, HTML, CSS
- Desktop application development — Java, Maven, Microsoft Visual C#, WPF, Delphi
- Operating- and real-time system design — C, micro-kernel design, ARM and Intel assembly languages
- Mobile development — Android, Windows Phone 7, SQLite
- Game development — OpenGL, Physics/Math skills, computational geometry

HIGHER EDUCATION

- **MMath in Computer Science** at University of Waterloo, ON, Canada (**2012 – August 2014**)
  Average: 93 / 100

- **BSc in Computer Systems and Software** at Kazakh-British Technical University, Kazakhstan (**2008 – 2012)**
  Average: 3.97 / 4.00

WORK EXPERIENCE

- **Graduate Research Assistant** at the University of Waterloo **(Sept 2012 – Aug 2014)**

  1. Designed Clafer Web Tools – web-based tools for domain modeling, instantiation, visualization and exploration of variability models *(Javascript, Node.JS)*
     - Being used by researchers and were published and presented at SPLC'13, Tokyo, Japan
  2. Designed real-time operating system kernel and multi-thread application on top *(C, Assembly)*
     - The application controlled two trains moving around the track with successful collision avoidance
     - The system could restore itself after hardware controller's faults or reboot
  3. Two projects are in progress
     - Early design exploration of E/E (Electronic / Electric) architectures as a part of NECSIS (http://www.necsis.ca/) with General Motors
     - Optimization of safety level allocation in safety-critical components of automotive systems

- **Research Intern** at Pratt & Whitney Canada, Longueuil, QC, Canada (**Oct 2013 – Dec 2013)**

  1. Investigated architectural patterns for modeling system and control software variability in product lines
  2. Successfully designed and demonstrated SysML model of engine parts

- **Senior Specialist** at Kazakh-British Technical University, Almaty, Kazakhstan **(June 2011 – Dec 2011**)

  1. Developed International School of Economics and Social Sciences website *(Drupal CMS)*
     - Was the official school website for three years
  2. Created an online file and document sharing system *(Zend Framework, PHP)*
     - Successfully used by faculty and staff for online paper work

MAJOR ACHIEVEMENTS

- Two publications presented at Software Product Line Conference 2013, Tokyo, Japan, published on ACM.org
- Top 20 at Microsoft Imagine Cup World Finals 2012, Sydney, Australia, "Archangel" project
- International Student Competitions of IT Projects 2011 at Kazakh-British Technical University
  - "Multimedia technologies and Game Development" – 1st place for designing OpenGL-based computer game
  - "Web Applications and Database Design" - Grand-prix for "Archangel" emergency management system
- Won local Android Hackhaton 2011 by Google Technical User Group (Android OpenGL-based small game)
- Completed Bachelor's studies with "Diploma with Highest Honors" for perfect academic achievements
- Received full grant for BSc education and the scholarship named after the Republic's President (2011)