

ALEXANDER MURASHKIN

University of Waterloo, MMath

Homepage and projects: www.student.cs.uwaterloo.ca/~amurashk/

E-mail: amurashk@gsd.uwaterloo.ca

Phone: +1 (226) 600-5529

Address: #4-354 Erb St W,
Waterloo, ON, Canada

Professional Knowledge and Skills

Client-server architecture and website development skills	Javascript, AJAX, JQuery, Node.JS, Angular.JS, D3.js, Zend Framework, Drupal CMF, PHP, SQL, HTML, CSS
Desktop/standalone application development	Java, Maven, Microsoft Visual C#, WPF, Delphi
Operating system design, real-time and embedded system programming	C language, micro-kernel design, Märklin Digital Interface, ARM and Intel assembly languages
Mobile application development	Android Platform, Windows Phone 7, SQLite
Game development and computer graphics	OpenGL, Physics/Math skills, computational geometry
Domain, feature and architectural modeling	UML, SysML, AADL, Clafer language
IDEs and version control systems	Git / GitHub, Eclipse, Sublime Text

Higher Education

2012 – Aug.2014 (expected)	MMath in Computer Science, University of Waterloo , Waterloo, ON, Canada. Average: 93 / 100
2008 – 2012	BSc in Computer Systems and Software, Kazakh-British Technical University, Almaty, Republic of Kazakhstan. Average: 3.97 / 4.00.

Work Experience

Sept 2012 – Aug 2014 (expected) University of Waterloo Waterloo, ON, Canada	Graduate Research Assistant and MMath Student <ul style="list-style-type: none">Designed a web-based tool set for domain modeling, instantiation, visualization and exploration of variability models (<i>Node.JS</i>, <i>JQuery</i>):<ul style="list-style-type: none">The tool set is being used by researchers and were published and presented at SPLC'13, Tokyo, Japan. See https://www.student.cs.uwaterloo.ca/~amurashk/index.html#show/project/claferwebtoolsDesigned a real-time operating system kernel and a real-time application on top of that (<i>C</i>, <i>ARM Assembly language</i>):<ul style="list-style-type: none">The project scored high, the application controlled two trains moving around the track with successful collision avoidanceThe system could self-restore after hardware controller's rebootTwo projects are in progress:<ul style="list-style-type: none">Early design exploration of E/E (electronic/electric) architectures as a part of NECSIS (http://www.necsis.ca/) with General MotorsOptimization of safety level allocation in safety-critical components of automotive systems
Oct 2013 – Dec 2013 Pratt & Whitney Canada Longueuil, QC, Canada	Research Intern <ul style="list-style-type: none">Investigated architectural patterns for modeling system and control software variability in product lines<ul style="list-style-type: none">As a team, designed a SysML model of engine parts and successfully demonstrated it in the company as a proof of concept

<p>June 2011 – Dec 2011</p> <p>Kazakh-British Technical University</p> <p>Almaty, Kazakhstan</p>	<p>BSc Student and Senior Specialist</p> <ul style="list-style-type: none"> Developed software components for Microsoft Imagine Cup project: an emergency management system with drones (<i>WPF, C#, Windows Phone 7</i>) <ul style="list-style-type: none"> Top 20 at Microsoft Imagine Cup World Finals 2014, Australia Developed International School of Economics and Social Sciences website (<i>Drupal CMF, PHP, Javascript, HTML</i>) <ul style="list-style-type: none"> Was the official school website for three years Created an online file and document sharing system (<i>Zend Framework</i>) <ul style="list-style-type: none"> Successfully used by faculty and staff for doing paper work
---	---

Achievements and Awards

2012	<i>Microsoft Imagine Cup 2012, local finals</i> – 1 st place <i>“Red Diploma”</i> - a diploma with Honours – for perfect academic achievements
2011	<i>Android Hackathone competition</i> , Almaty Google Technology User Group, 1 st place <i>Microsoft Imagine Cup</i> , local final, 2 nd place <i>International Student Competitions of IT Projects</i> , Kazakh-British Technical University, “Multimedia technologies and Game Development” nomination – 1 st degree diploma, “Web Applications and Database Design” nomination – grand prize
2010	<i>International Competitions of IT Projects</i> , Kazakh-British Technical University, 3 rd degree diploma The scholarship named after the President N.Nazarbayev for perfect academic achievements
2009	<i>IT Project Competitions</i> , Kazakh-British Technical University, 2 nd degree diploma
2008	<i>Intel Excellence in Computer Science Award</i> for the project “Paper-based test generating computer application” <i>State Education Grant</i> (scholarship) and <i>Golden Medal</i> for perfect academic results <i>“Daryn” Junior Science Competition</i> , Computer Science section, 1 st degree diploma <i>Scientific project competition</i> , the Small Academy of Sciences, 1 st degree diploma

Conferences and Events Attended

1. 17th International Software Product Line Conference 2013, Tokyo, Japan	as a paper author
2. Summer School on Cyber-Physical Systems 2013, Grenoble, France	as a participant
3. Microsoft Imagine Cup 2012, World Finals, Sydney, Australia	as a competition participant
4. Google Developer Day 2011, Moscow, Russia	as a winner of a local Hackathone by Google Technology User Groups

Publications

Murashkin, A. , M. Antkiewicz, D. Rayside, and K. Czarnecki, " Visualization and Exploration of Optimal Variants in Product Line Engineering ", Software Product Line Conference, Tokyo, Japan, 2013
Antkiewicz, M., K. Bąk, A. Murashkin , R. Olaechea, J. Liang, and K. Czarnecki, " Clafer Tools for Product Line Engineering ", Software Product Line Conference, Tokyo, Japan, 2013.

Languages and Interests

I can speak English fluently. My native language is Russian, also know some French and German. Like board games, chess, bicycling, Physics and science in general
