Alexander Myltsev
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EDUCATION

Keldysh Institute of Applied Mathematics (KIAM), Moscow, Russia

- Theoretical Computer Science: Program Analysis and Transformation Group (2nd year PhD-dropout)

Moscow Institute of Physics and Technology (MIPT), Moscow, Russia
Department of Control and Applied Mathematics, Chair of Informatics (CIS)

- *M.S. in Mathematics and Computer Science*, GPA: 5.0/5.0
  Thesis: Embedding Domain Specific Language in F# for Hybrid System Control
  Advisor: Andrey Ustyuzhanin, PhD in CS, Associate Professor at MIPT

South Ural State University (SUSU)**,** Chelyabinsk, Russia
Faculty of Electronics: Department of Computing Systems and Network

- *Diplomated Specialist* (Computing Systems and Networks), GPA: 4.5/5.0
  Thesis: Distributed System for Conferencing
  Advisor: Sergey Tkachev, Researcher at SUSU, CEO of Genrix Software

South Ural State University (SUSU), Chelyabinsk, Russia
Department of Linguistics: Faculty of Linguistics

- Diploma of Occupational Training (Theory & Practice of English), GPA: 4.7/5.0

Yandex School of Data Analysis (auditor), supported by Yandex

Summer Schools

- August 2014, 8th Russian Summer School in Information Retrieval (RuSSIR)
- July 2011, Summer School in Software Engineering and Verification.
  Best project award for "Formally Proving Facts in the Refinement Algebra"
  Mentor: Sir Tony Hoare, Microsoft Research
- June 2010, All-Russian summer school in "High Performance Computing"
- August 2009, Microsoft Research HPC Summer School at MSU
- June 2009, NVIDIA and Intel Summer School at MIPT

Coursera.org, Udemy, etc.

- Udemy: Become a SuperLearner
- Algorithms: Design and Analysis. Full score
- Machine Learning. Full score
- Principles of Reactive Programming (in Scala), Score: 60/60
- Functional Programming Principles in Scala, Score: 60/60
- Structure and Interpretation of Computer Programs, H. Abelson and G. J. Sussman

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Business Trainings

- October 2013, Participant of "Start in Garage" two days startup acceleration program at MIPT. Organized by RISVentures.com

PROFESSIONAL EXPERIENCE

Digital October: BigData Course Tutor at New Professions Lab (newprolab.com/bigdata)   (March 2015 — present)

- Tutoring 60 students to successful completion of the course
- Improving educational material

CollectiveMedia (collective.com) External Scala development and data engineering consultant   (November 2014 — present)

- High-load backend development and optimizations (based on spray.io)
- Data analysis, models development, data platform support
- Build system automation
- Code improvements
- Distributed team work

CollectiveMedia (collective.com) External Scala development consultant   (November 2013 — November 2014)

- High-load backend development and optimizations (based on spray.io)
- Build system automation
- Code improvements
- Distributed team work

[job]snipper Co-founder   (April 2013 — April 2014)

- Backend development, algorithms implementation, architecture design, database design, RESTful API design
- Data analysis: query logs and job postings
- Distributed team work

Intern at Google Summer of Code   (May 2013 — September 2013)

- Successfully finished the internship prorgam. Contributed to a real-world, long-term project being a part of a globally distributed team
- parboiled2 – a Macro-Based PEG Parser Generator for Scala (github.com/sirthias/parboiled2)

C# and Java Backend Software Developer   (November 2012 — July 2013)
iiko (http://en.iiko.ru), Moscow

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- Connected http://iiko.net to social networks: Twitter, Facebook, VKontakte
- Contributed to the development and improvement of two core features: "profit and loss reports" and "incentive programs"
- Bug fixing, code optimization, tech talks, API design

Co-founder, Backend Developer   (May 2012 — November 2012)
Kudoster – social service for thankful people
- Iterated on multiple versions of a product and business models
- Developed a fully functional backend from a mere concept: system architecture, database design, RESTful API design, development of high–load service, optimization and testing, social networks integration

CUDA Certification and Tech Marketing   (December 2010 — May 2012)
Support Specialist (Outsource Contractor) at NVIDIA (http://nvidia.ru)
- Served as an evangelist of CUDA technologies: certification program support, CUDA experts search, production of CUDA teaching materials (tutorials, talks..)
- Invited speaker at Summer 2011, Winter 2011 and Spring 2012 Schools in GPU Computing and CUDA at Moscow State University
- Co-author of the book "Parallel computing on GPU Architecture and CUDA programming model" and the corresponding online course for hpc-education.ru
- Developed a cross-platform GUI shell for teaching purposes

C++ Research and Development Intern   (July 2010 — December 2010)
Applied Parallel Computing (Education and Research Center, parallel-compute.com).
The only official NVIDIA partner in Russia for CUDA certification
- Completed an R&D project about augmented reality acceleration with CUDA
- Successfully passed CUDA certification exam

C# Developer   (September 2006 — May 2009)
Genrix Software
- Developed software prototypes that resulted in significant impact on Genuine *Channels product. Genuine Channels* beta was shipped entirely by 3 engineers

Business Solutions Developer (Practical Training)   (September 2007 — May 2008)
Alpha-Zeon (System Integrator Company, Microsoft Gold Certified Partner)
- Contributed to the development of a enterprise local automation system based on CRM 3.0 and SharePoint in a team of 5 people
- Successfully passed certification exams on "Microsoft CRM 3.0 Applications" and "Microsoft CRM 3.0 Customization"

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TECHNICAL SKILLS

- Programming languages: Scala (macros, shapeless, continuation passing style and delimited continuations), Java, C#, Python, Scheme, F#, C/C++
- Technologies and tools: Microsoft web-backend stack (Windows, Azure, Visual Studio, MSSQL, Entity Framework, ASP.NET MVC 4), OpenSource web-backend stack (Ubuntu, bash, Emacs, sbt, Intellij IDEA, AKKA, spray.io, PlayFramework, Slick), nginx, Hadoop, Hive, Spark, Aerospike, Redis, CUDA C/C++, git, LaTeX

ACADEMIC CONTRIBUTIONS

- Reviewer of books: "SBT in Action", "Practical Recommender Systems", Manning
- Co-author of the book "Parallel computing on GPU Architecture and CUDA programming model"
- Co-author of the online course "Parallel computing on GPU Architecture and CUDA programming model" for hpc-education.ru
- Co-author of MIPT course "Basics of Robot Programming Using Microsoft Robotics Development Studio"
- MozLabs article author: "Elevating JavaScript Performance Through GPU Power"

TECH/INVITED TALKS

- Invited speaker at ScalaDays.org 2014 conference in Berlin, Germany
- Invited speaker at Summer 2011, Winter 2011 and Spring 2012 Schools in GPU Computing and CUDA at Moscow State University

OPEN SOURCE CONTRIBUTIONS   github.com/alexander-myltsev

Core contributor to RussianAICup 2014 Scala package
http://russianaicup.ru/post/20 , https://github.com/iSerge/scala-cgdk/graphs/contributors

Founder and lead developer   (November 2014 — present)
RSlick – R-package for templating and unified access to relational databases

Founder and lead developer   (July 2014 — present)
sbt-uglify – Scala SBT plugin that compresses JavaScript/mustache files with UglifyJS
(https://github.com/alexander-myltsev/sbt-uglify)

Co-founder and lead developer   (May 2013 — present)
parboiled2 – Macro-Based PEG Parser Generator for Scala
(github.com/sirthias/parboiled2).
- Co-designed the overall architecture
- Implemented most of the functionality till the present moment
- The project is in core of Typesafe.com akka-http (formely spray.io)

Co-founder and lead developer   (October 2012 — March 2013)

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Scalan-GPU – Thrust/CUDA backend for *Scalan-v2* library. *Scalan-v2* is an implementation of nested data parallelism in Scala (https://github.com/alexander-myltsev/Scalan-GPU)

- Co-designed the overall architecture
- Implemented alpha version of "Scalan-CUDA" translator and launcher

ASP.NET MVC4 contributor   (September 2012 — November 2012)

HONORS & AWARDS

- Fall 2013, R&D Grant, U.M.N.I.K.-MIPT (400 000 RUB)
- 2010, CUDA certified professional
- Imagine Cup 2011 team, Russian finalists of Embedded Development
- Best Report at VII All-Russian Conference "Microsoft Technologies in Theory and Practice of Programming" in 2010
- Imagine Cup 2010 team, 2nd place in a regional stage of Software Design Competition in Moscow & 4th place in Russian final of Embedded Development
- Mozilla Labs Jetpack 0.5 Contest 2009 winner: Mozilla Firefox Jetpack and NVIDIA CUDA integration for data processing
- 9th place of 258 at Imagine Cup 2009 Robotics & Algorithms semifinal (the only solution written in a functional language, F#)
- Microsoft CRM certified professional: "Microsoft CRM 3.0 Applications" and "Microsoft CRM 3.0 Customization"

ADDITIONAL INFORMATION

- Languages: Russian (mother tongue), English (fluently reading technical documentation, verbal proficiency adequate to pass a technical interview)
- Personality: hard-working, responsible, research-driven, energetic, innovative, experienced to work in globally distributed teams