Artem Pelenitsyn

Curriculum Vitæ

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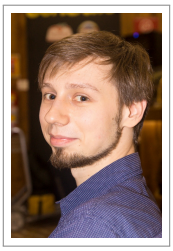

Education

2003–2007 **B.Sc. in Applied Mathematics and Computer Science**, *Southern Federal University*, Rostov-na-Donu, Russia.
Major: Foundations and Software Engineering for Computer Science

2007–2009 **M.Sc. in Applied Mathematics and Computer Science**, *Southern Federal University*, Rostov-na-Donu, Russia.
Major: Foundations and Software Engineering for Computer Science

Master thesis

title *BMS-algorithm and its application to decoding*

supervisor Assoc. prof. V.M. Deundyak

Research interests

- Programming languages,
- Type systems and type theory,
- Functional programming,
- Mathematics of programming.

Experience

Occupation

2010–2011, 2012–2017 **Assistant professor, lecturer**, *Southern Federal University* , Rostov-na-Donu, Russia.

Spring 2017 **Research assistant at Programming Research Laboratory**, *Northeastern University*, Boston, MA, USA.

Fall 2017 **Research assistant at Programming Research Laboratory**, *Czech Technical University*, Prague, Czech Republic.

Teaching (at Southern Federal University)

- Quantum Computations (lectures) — 2016 (fall).
- Computer Architecture (lectures & labs) — 2013–2016 (spring).
- Automata and Ciphers (lectures) — 2013–2016 (fall).
- Programming Basics labs — 2008, 2010–2012, 2014–2016.
- Programming Languages labs — 2008, 2010, 2012–2015 (fall).
- Functional Programming labs — 2011 (spring).

- Automata and Languages — 2010 (spring).
- Microprogramming/Assembler Programming labs — 2009 (fall).
- Geometry and Algebra — 2009 (fall).

Supervising student projects

- *Structuring Effectful Computations* — MSc G. Lukyanov, 2017
- *Generic Programming and Zippers* — A. Bolotina, 2017
- *Generation of algebraic data types descriptions based on JSON data via Template Haskell* — BSc O. Maroseev, 2016
- *Generation of type class instances based on instances of superclasses via GHC API* — BSc O. Filippskaya, 2016
- *Functional parser for Markdown using monad combination and monoidal representation of input* — BSc G. Lukianov, 2015
- *Deduction system for linear logic in Haskell* — BSc V. Pankov, 2015

Summer schools and other extra trainings

2017 **Oregon Programming Languages Summer School**, *Univeristy of Oregon*, Eugene, USA, June 26th to July 8th 2017.

2015 **Summer School on Generic and Effectful Programming**, *Department of Computer Science, Univeristy of Oxford*, St Anne's College, Oxford, 6th to 10th July 2015.

2011 **Summer School "Algebra and Geometry"**, *Laboratory of Algebraic Geometry in the National Research University Higher School of Economics, Teachers' Training University of Yaroslavl'*, Yaroslavl', Russia.

2010 **Microsoft Algorithms and Data Structures Summer School**, *Microsoft Research in Silicon Valey*, Saint-Petersburg, Russia.

2010 **Winter School on Applied Mathematics and Computer Science**, *National Research University Higher School of Economics*, Moscow province, Russia.

2009 **Marktoberdorf Summer School "Logics and Languages for Reliability and Security"**, Marktoberdorf, Germany.

Participation in MOOC

Coursera, 2013 **The Hardware/Software Interface**, *Prof. J.D. Noe*.

Coursera, 2012 **Quantum Mechanics andQuantum Computation**, *Prof. U. Vazirani*.

Coursera, 2012 **Functional Programming Principles in Scala**, *Prof. M. Odersky*.

Coursera, 2012 **Introduction to Logic**, *Assoc. Prof. M. Genesereth*.

Coursera, 2012 **Compilers**, *Prof. A. Aiken*.

Coursera, 2012 **Automata**, *Prof. J. Ullman*.

Coursera, 2012 **Cryptography I**, *Prof. D. Boneh*.

Coursera, 2012 **Algorithms I**, *Assoc. Prof. T. Roughgarden*.

Personal awards, scholarships, etc.

2012 **Participation in all-russian final of international student olympiad "IT-planet"**, competition: "Oracle Java Olympic".

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2012 **Diploma for taking second place in regional stage of international student olympiad "IT-planet"**, competition: "Oracle Java Olympic".

2012 **Participation in the final stage of VI Open Programming Contest of Southern Federal University**, individual event.

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2011 **Scholarship from foundation "Education and Science on the South of Russia"**.

2011 **Rector's commendation for participating in international accreditation of unversity teaching programmes**, *Southern Federal University*.

2008 **Diploma for the best talk**, *student session during annual "Week of Science", Southern Federal University*.

Conference Talks: Science

2015 **Scientific Conference "Modern Information Technologies and IT-Education"**, *talk "C++17 Concepts in their relation to C++0x ones"*, Lomonosov Moscov State University, Faculty of Computational Mathematics and Cybernetics.

2012 **Research and Pratice Conference: Free Open Source Software "FOSS Lviv 2012"**, *talk "Software Implementation of Decoder For a Class Of Error-Correcting Codes on Algebraic Curves: Designing on a Basis of Generic Metaprogramming Templates"*, Ivan Franko National University of Lviv, Lviv, Ukraine.

2008 **Conference "Week of Science" in Southern Federal University**, *talk "On Implementation of Decoder for a Class of Algebraic-Geometry Codes on Projectve Curves using Sakata algorithm"*, Rostov-na-Donu, Russia.

Conference Talks: Education, Technology, Popular Science

2015 **Scientific Conference "Modern Information Technologies in Education"**, *talk "Store and publication assignment infrastructure for Moodle LMS"*, Institute for Mathematics, Mechanics and Computer Science in honour of I. I. Vorovich, Rostov-na-Donu, Russia.

2014 **Joint International Program For Scientific and Technology Cooperation**, *talk "Computer Science Projects Developed inside (in connection with) Department of Mathematics, Mechanics and Computer Sciences / SFedU"*, Sao Paulo, Rio de Janeiro, Fortaleza, Brasil.

2010 **Scientific-Methodic Conference "Modern Information Technologies in Education"**, *talk "Methodic Supply and IT-infrastructure for Teaching Low-Level Programming"*, Computing Center of Southern Federal University, Rostov-na-Donu, Russia.

2008 **International Conference on Information Security and Safety**, *talk "Building Web-portal for Information and Education purposes on Computing Department"*, Taganrog, Russia.

Seminar Talks

2016 **Functional Visitors**, *Programming Languages and Compilers seminar*.

2016 **Seminar on Galois Theory**, Institute for Mathematics, Mechanics and Computer Science, Southern Federal University, Rostov-na-Donu.

2011 **Minicourse on Galois Theory**, *Algebra seminar*, Faculty for Mathematics, Mechanics and Computer Science, Southern Federal University, Rostov-na-Donu.

2011 **Talks "Foundations for programming Languages", "Automata and Formal Languages"**, *seminar for undergraduates "Introduction to Theoretical Computer Science"*, Faculty for Mathematics, Mechanics and Computer Science, Southern Federal University, Rostov-na-Donu.

2009 **Talk "Higher-Order Computations and Model Checking"**, *Interchair seminar on Computer Science*, Faculty for Mathematics, Mechanics and Computer Science, Southern Federal University, Rostov-na-Donu.

2009 **Talk "On multi-dimensional version of Berlekamp-Massey algorithm"**, *Seminar on Mathematical Methods in Information Safety and Security*, Faculty for Mathematics, Mechanics and Computer Science, Southern Federal University, Rostov-na-Donu.

2009 **Talk "Inductive Data Types in Programming"**, *Seminar on Category Theory*, Faculty for Mathematics, Mechanics and Computer Science, Southern Federal University, Rostov-na-Donu.

2008 **Talk "Spring Framework"**, *Rostov Java User Group*, Computing Center of Southern Federal University, Rostov-na-Donu.

Publications

- Functional Parser of Markdown Language Based on Monad Combining and Monoidal Source Stream Representation (with G.Lukyanov) // In: Itsykson V., Scedrov A., Zakharov V. (eds) Tools and Methods of Program Analysis. TMPA 2017. CCIS, vol 779, pp. 90–101. Springer, Cham. DOI: 10.1007/978-3-319-71734-0_8. With G. Lukyanov.
- Lujyanov G., Pelenitsyn A. Buliding parsers with algebraic effects // Proceedings of the First Russian Conference on Programming Languages and Compilers (PLC'17), 2017, pp. 185–190.
- Pelenitsyn A. Associated Types and Constraint Propagation for Generic Programming in Scala // "Programming and Computer Software" (english trans. of "Programmirovanie"), 2015, No 4, pp. 224–230. DOI: 10.1134/S0361768815040064
- Pelenitsyn A. Generic and meta- programming approach to design of software implementation of decoder for a class of algebraic geometry codes // "Prikladnaya informatika" (Applied computer science), 2012, No 2(38), pp. 60–70.
- Pelenitsyn A. On exploiting one metaprogramming technique. Journal of the Ivanovo Mathematical Society, 2011, No. 1(8), pp.79–84.
- Deundyak V., Pelenitsyn A. Operator-theoretic approach to Berlekamp–Massey Algorithm, // Izvestia vuzov (Universities' Bulletin), Sev.-Kav. Region (Caucasus Region), Estestvennie Nauki (Sciences), 2011, No. 3. Pp. 11–13.
- Mayevskiy A., Pelenitsyn A. Software Implementation of Algebraic-Geometry Codec using Sakata algorithm, // Izvestia Yufu (Southern Federal University Bulletin), Technology Sciences, 2008, No. 8, pp. 196–198.

Papers In Conference Transactions

- Pelenitsyn A. On Implementation of n-Dimensional BMS-algorithm Using Generic Programming // Transactions of Scientific School of I.B. Simonenko, 2010, pp. 197–203.

- Mayevskiy A., Pelenitsyn A. Methodic Supply and IT-infrastructure for Teaching Low-Level Programming // Transactions of Scientific-Methodic Conference “Modern Information Technologies in Education”, 2010, pp. 210–212.
- Mayevskiy A., Pelenitsyn A. On Software Implementation of Algebraic-Geometry Codec using Sakata algorithm, // Transactions of X International Conference on Information Security and Safety, 2008, pp. 55–57.
- Pelenitsyn A. On Implementation of Decoder for a Class of Algebraic-Geometry Codes on Projectve Curves using Sakata algorithm, // Transactions of the Conference "Week of Science" in Southern Federal University, 2008, vol. 1, pp. 55–57.
- Bragilevsky V., Mihalkovich S., Pelenitsyn A. Building Web-portal for Information and Education purposes on Computing Department // Transactions of Scientific-Methodic Conference “Modern Information Technologies in Education”, 2008, pp. 48–49.

Book Translations

- Dowek, Gilles, Levy, Jean-Jacques. Introduction to the Theory of Programming Languages. / Springer. 2011. Russian translation together with V. Bragilevskiy. Published by DMK Press in 2013.
- Bird, Richard. Pearls of Functional Algorithm Design. / Cambridge University Press. 2010. Russian translation together with V. Bragilevskiy. Published by DMK Press in 2013.

Computer skills

Programming languages	C, **C++(14)**, **Haskell**, **Java**, Scala, Julia, Pascal, C#
Markup, Scripting	**LaTeX**, HTML, CSS, JavaScript, PHP, bash, Regular expressions
Environment	Git, Make, Wiki/Markdown
Operating systems	**GNU/Linux family**, Windows family

(Not So) Toy Programming Projects (mostly on GitHub)

chek-test	Remove groove from checking students' submissions / Haskell
cpp-mv-poly	C++-implementation of multivariate polynomials and the BMS-algrithm massively using C++ templates
mmcs-entrance	Generation of entrance diagrams (in PNG) in MMCS/SFedU from oficial data (XLS) / Java, 2010
lj-comments-notifier	A tool for notifying about new comments in some livejournal.com-based blog / Haskell
Project Euler	Link to the participant record / Haskell (mostly), C++
GitHub	ulysses4ever

Languages

Russian	Native
English	Advanced (IELTS exam band score 7.5 taken in 2012)

Interests

Classical literature	Homer, Goethe, Joyce, Kafka, Camus, Sartr, Brodsky
Art cinema	Bergman, Fellini, Truffaut, Tarkovsky, Wenders, Kitano, von Trier

Extra info

Gender	Male
Marital status	Single
Current place of living	Prague, Czech Republic
Citizenship, Homeland	Russia