

Sergey V. Kovalchuk

Curriculum Vitae

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Work History

- [ITMO University](#), St. Petersburg, Russia. Nov 2006 – Present. Senior researcher at National Center for Cognitive Research, associate professor at Faculty of Digital Transformations.
- (part-time) [Almazov National Medical Research Center](#), St. Petersburg, Russia. Apr 2017 – Present. Researcher.
- (part-time) [Kurchatov Institute](#), Moscow, Russia. Oct 2017 – Dec 2018. Researcher.
- *Embl*, web development company, Orenburg, Russia. May 2005 – Nov 2006. Software architect, senior developer.
- *X-Plat*, payment system, Orenburg, Russia. Sep 2005 – Aug 2006. Senior developer.

Education

- *ITMO University*, St. Petersburg, Russia. Nov 2006 – Dec 2008. PhD, Math. modeling, num. calc. and software systems
- *Orenburg State University*, Orenburg, Russia. Sep 2001 – Jun 2006. Engineer, software engineering.

Skills

- Experience in modeling and simulation (design, implementation, experiments, validation, verification)
- Experience in software engineering (software architecture, design, development, testing, documentation)
- Familiar concepts: eScience, cloud computing, workflows, decision support systems, BigData
- Programming languages: C#, C/C++, Python, familiar with Java, R
- Strong analytical skills, ability to design original systems and approaches
- Ability to work in team and within multi-team environment
- Ability to work under strict deadlines
- Ability and will to learn new skills and get new knowledge
- Languages: Russian (native), English (professional work), German (basic)

Notable Projects and Funding

Research grants (as primary investigator): “Intelligent technologies for building, investigation and application of digital entities based on composite models for complex systems” (2019-2021); “Personalized recommending technology for chronic disease patients using hybrid predictive modeling of life

and health processes” (2017-2019); “Big data management for computationally intensive applications” (2014-2016).

Projects for industry (as primary investigator): “Risk assessment for redundant medication recommendation” (2019-2020); “Self-learning module for operator support in tele-medicine information system” (2018-2019)

Other notable projects (as participant): CLAVIRE: cloud computing environment. A series of projects started by the project “Multi-profile instrumental platform for building and management of distributed cloud computing environment: CLAVIRE” (supported by Ministry of Science and Education, 2010-2012) and followed by multitude projects on the development, extension and application of CLAVIRE.

Chairing and Judging

- Editor of Journal of Computational Science
- Guest editor of annual special issue of Journal of Computational Science after International Conference of Computational Science, ICCS (since 2016)
- Chair of Computational Health track in ICCS (2020, 2021)
- PC member of conferences and tracks ([ICCS](#), [DSRS](#), [YSC](#), [DTGS](#), etc.)
- Reviewing for journals (Future Generation Computer Systems, Journal of Biomedical Informatics, Journal of Computation Science, etc.) and conferences (ICCS, IEEE eScience, DSRS, YSC, DTGS, etc.)
- Reviewing grant proposals for Russian Scientific Foundation in the area of mathematics and informatics (since 2018)

Teaching (ITMO University)

- Supervising 1 PhD, 18 MSc, 3 BSc projects defended in 2010-2020 including 4 double-degree MSc students (ITMO University + University of Amsterdam)
- Supervising MSc education programs: “Computational Biomedicine”, “Digital Healthcare”
- Giving courses for MSc students: “Mathematical models of complex software”, “Introduction to eScience and eEngineering”
- Organizing and giving a course for educated professionals “Data Analysis and Processing in Medicine and Healthcare” (provided for Almazov National Medical Research Center, Nov-Dec 2019, official certification)
- Giving technological training classes: OpenMP, WCF, Python for Scientists

Service (ITMO University)

- Member of Academic Council (university, faculty)
- External expert in IT (for courts, for companies)

Personal Information and Family

Birth date: 1984-01-30 (37 y/o)

Citizenship: Russia

Marital status: married

Children: 6 y/o, 4 y/o