

Ilya Markov
Curriculum Vitae

PERSONAL INFORMATION *Address:* Informatics Institute (IvI), University of Amsterdam (UvA), Science Park 904, 1098 XH, Amsterdam, Netherlands
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RESEARCH INTERESTS Web Search, User Models, Learning to Rank, Heterogeneous Information Access, Federated Search, Distributed Information Retrieval

RESEARCH EXPERIENCE AND EDUCATION *September 2016 – current:* Invited lecturer and researcher at the St. Petersburg Academic University (SPbAU), St. Petersburg, Russia

April 2014 – current: Postdoctoral researcher at the Information and Language Processing Systems group (ILPS), Informatics Institute, University of Amsterdam (UvA), Amsterdam, Netherlands

October 2008 – January 2014: PhD student at the Information Retrieval Group, Faculty of Informatics, University of Lugano (USI), Lugano, Switzerland
Research Topic: Uncertainty in distributed information retrieval
Scientific Adviser: Prof. Fabio Crestani

October 2013 – January 2014: Research Internship at Yandex, Moscow, Russia
Research Topic: User behavior in aggregated search
Scientific Adviser: Dr. Pavel Serdyukov

June – August 2012: Internship at the University of Strathclyde and the University of Glasgow, Glasgow, UK
Research Topic: Risk-aware methods for distributed information retrieval
Scientific Advisers: Prof. Ian Ruthven, Department of Computer and Information Sciences, University of Strathclyde
Dr. Leif Azzopardi, School of Computing Science, University of Glasgow

July 2006 – October 2008: Researcher at the Information Management Research Group, Faculty of Mathematics and Mechanics, St. Petersburg State University, St. Petersburg, Russia
Research Topic: Adaptive fusion of multiple image features
Scientific Adviser: Prof. Boris Novikov

September 2001 – July 2006: BSc and MSc at the Faculty of Mathematics and Mechanics, St. Petersburg State University, St. Petersburg, Russia
Major: Computer Science and Software Engineering
Minor: Mathematics

STRENGTHS Information Retrieval, Data Science, Machine Learning, Artificial Intelligence, Statistics, Algorithms and Data Structures, Software Engineering

SUPERVISION *PhD supervision:*

- Vitaly Bibaev (SPbAU), Content-based bug prediction
- Ilnur Shugaepov (SPbAU), Efficient click modeling

PhD co-supervision:

- Rolf Jagerman (UvA), Counterfactual learning and evaluation
- Chang Li (UvA), Large-scale dueling bandits algorithms
- Artem Grotov (UvA), Online learning to rank from implicit feedback
- Alexey Borisov (UvA & Yandex), Modeling user behavior in web search
- Yaser Norouzzadeh (UvA), User behavior in location search
- Anastasia Giachanou (USI), Opinion mining for distributed IR
- Shangsong Liang (UvA), Efficient data fusion

MSc supervision:

- 2018 Bram van den Akker (UvA), Haitam Benyahia (UvA), Vladimir Isakov (UvA), Daniela Solis Morales (UvA), Vadim Kleiman (SPbAU), Ekaterina Maljutina (SPbAU), Enzo Blindow (UvA), Sidney de Vries (UvA)
- 2017 Martijn Wardenaar (UvA), Stepan Malkevich (SPbSU), Ilnur Shugaepov (SPbAU), Nout van Deijck (UvA), David Langerveld (UvA)
- 2015 Remi de Zoeten (UvA), Simon Widler (UvA)

PhD committee: Maria-Hendrike Peetz (UvA), Time-aware online reputation analysis

TEACHING

Course organizer and lecturer:

- *Autumn 2016, 2018:* Advanced Information Retrieval, MSc, UvA, Artificial Intelligence program
- *Spring 2015–2017:* Web Search, MSc, UvA, Information Studies program, student evaluation 8.25–8.7 out of 10
- *Autumn 2016–2017:* Information Retrieval, MSc, SPbAU (St. Petersburg, Russia), Computer Science program

Conference tutorials:

- Click Models for Web Search, RuSSIR 2016
- Click Models for Web Search and their Applications to IR, WSDM 2016
- Click Models for Web Search and their Applications, AINL-ISMW 2015
- An Introduction to Click Models for Web Search, SIGIR 2015
- Advanced Click Models and their Applications to IR, SIGIR 2015
- Distributed Information Retrieval and Applications, ECIR 2013
- Distributed Information Retrieval, Yandex Summer School in Distributed Computing 2011
- Distributed Information Retrieval, RuSSIR 2010
- Distributed Information Retrieval, ECIR 2010

COMMUNITY SERVICE

PC chair: RuSSIR 2015

Co-organizer: Search Intent Mining task (IMine-2) at NTCIR-12

PC member: SIGIR 2015–2018, SIGIR short 2011-2018, CIKM 2016–2018, WWW 2015–2018, ECIR 2015–2017, ICTIR 2015–2017, RuSSIR 2016–2018, HIA 2015–2016

Journal reviewer: TOIS, IP&M, IR Journal

OC member: RuSSIR 2015, RuSSIR 2011, SIGIR 2010

GRANTS AND SCHOLARSHIPS

- ELIAS support for tutorials at SIGIR 2015
- ELIAS support for RuSSIR 2015
- Early Postdoc.Mobility fellowship, Swiss National Science Foundation, 2014-2015
- COST Action IC1002, Short-Term Scientific Mission: University of Amsterdam (2013), University of Strathclyde and University of Glasgow (2012)
- COST Action IC0702, Short-Term Scientific Mission: Alexander Technological Educational Institute of Thessaloniki (2011), University of Glasgow (2010)
- Attendance support from SIGIR 2011, ESSIR 2009
- Intel Student Research Scholarship 2007-2008
- Russian Foundation for Basic Research Grant 07-07-00268a (partial support)
- Yandex Internet-Mathematics Grant 2007

OPEN-SOURCE SOFTWARE

- Python library of click models for web search “PyClick”, available at <https://github.com/markovi/PyClick>
- Java library of distributed retrieval techniques “LiDR”, available at <https://github.com/markovi/LiDR>

TECHNICAL SKILLS

Sun Certified Java 5.0 Programmer, L^AT_EX, Python, Lucene, Terrier, Lemur, Git, SVN, SQL

LANGUAGES

Russian – mother tongue, English – fluent, Italian – advanced

SELECTED PUBLICATIONS

A. Borisov, I. Markov, M. de Rijke, and P. Serdyukov. A context-aware time model for web search. In *Proceedings of ACM International Conference on Research and Development in Information Retrieval (SIGIR)*, pages 205–214, 2016.

A. Borisov, I. Markov, M. de Rijke, and P. Serdyukov. A neural click model for web search. In *Proceedings of International World Wide Web Conference (WWW)*, pages 531–541, 2016.

A. Chuklin, I. Markov, and M. de Rijke. Click Models for Web Search. *Synthesis Lectures on Information Concepts, Retrieval, and Services*. Morgan & Claypool Publishers, 2015.

I. Markov and F. Crestani. Theoretical, qualitative, and quantitative analyses of small-document approaches to resource selection. *ACM Transactions on Information Systems*, 32(2):9:1–9:37, 2014.

I. Markov, L. Azzopardi and F. Crestani. Reducing the Uncertainty in Resource Selection. In *Proceedings of European Conference on Information Retrieval (ECIR)*, Moscow, Russia, pages 507–519, 2013.

I. Markov, N. Vassilieva. Image Retrieval: Color and Texture Combining Based on Query-Image. In *Proceedings of International Conference on Image and Signal Processing (ICISP)*, Cherbourg-Octeville, France, pages 430–438, 2008.