

Максим Александрович БАКАЕВ

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Город: Новосибирск

Дата рождения: 13 января 1981 г.

Образование

09.2007 – 09.2012	Graduate School (PhD program) of Novosibirsk State Technical University (NSTU), Russia	PhD (Candidate of Technical Science) degree in <i>Software Engineering</i> (05.13.11 / 2.3.5)
03.2004 – 06.2007	Graduate School of Digital Design of Kyungsung University , Busan, South Korea	Master of Design degree (<i>Digital Media Design</i>)
09.1997 – 06.2003	Business Faculty of NSTU, Russia	Bachelor and Master degrees in <i>Management Information Systems</i> (diplomas with distinction)

Work History

May 2021 – now	Department Head	
Mar 2014 – now	Associate Professor (Docent)	
Jan 2016 – Dec 2019	Senior Researcher	@ Novosibirsk State Technical University, Faculty of Automation and Computer Engineering
Jul 2012 – Sep 2015	Vice-Dean for Business Informatics	
Oct 2012 – Mar 2014	Senior Assistant Professor	
Sep 2009 – Oct 2012	Assistant Professor	
Jan 2012 – Sep 2015	Managing Director,	
Mar 2002 – Feb 2004	Head of Web Development department	@ VGroup company, Novosibirsk
Sep 2010 – Dec 2011	Директор	@ Youth Career Center (при мэрии г. Новосибирска)
Aug 2007 – Aug 2009	Project Manager	@ Novotelecom company, Novosibirsk
Sep 2005 – Jun 2007	Research Assistant	@ Universal Design Center of Kyungsung University, Busan, South Korea

Languages

Russian	Native	Competent in speaking and writing (scientific papers, tutorials, web content, etc.)
English	Full proficiency	Competent in speaking and writing (published Master dissertation, scientific papers, etc.). TOEFL ITP score 647 (in 2003, but I think I improved since then)
Korean	Elementary	Practiced the language while living in Korea (3.5 y), but already forgot most of it

Grants, Distinctions, Honors

2019 – 2022	RFBR mk : Creating algorithms for the classification of adaptive cognitive potential due to brain functional activity
2020 – 2021	RFBR Expansion (PI): Age-related particulars in perception of aesthetics and visual complexity of graphical user interfaces
2019 – 2021	RFBR Russian-Indian IND_a : Hybrid Deep Learning for Indo-Russian Sign Language Recognition
2017 – 2019	RFBR a2 (PI): Intelligent analysis and forecasting for regional labour markets with online data
2016 – 2018	RFBR mol_a_dk (PI): Development of AI methods application in human-computer interaction
2016 – 2017	RFBR mol_a (PI): Modeling interaction in human-computer systems using interface information complexity
2015 – 2016	DAAD Mikhail Lomonosov Research Internship at Technical University Chemnitz, Germany
2013 – 2016	Novosibirsk City Hall grants for young scientists (“Best Young Researcher in Universities” award)
2004 – 2007	Korean Government IT Scholarships for International Graduate Students (for Master and PhD)

Details

Research	Areas: Human-Computer Interaction (HCI), Machine Learning, Data Quality, Information Systems, Human Information Processing, Visual Perception, Text and Data Mining, Kansei Engineering, User Interfaces, Web Design, Universal Design. Publications: over 150 (Scopus: 75, Web of Science: 38), h-index (Scholar): 14
Teaching (classes taught)	Bachelor: Intelligent Information Systems, IT Services and Content Management. Master: HCI and Usability Engineering, Theory of Communications and Semiotics, Web Interface Design and Analysis, Information Society and the Problems of Applied Informatics, Statistical Methods for Data Analysis, Graduate Research Seminars
Service	Reviewer: CHI, UIST, theWebConf, IJHCS, Applied Ontology, IJHCI, TWEB, Soft Computing, Annals of Telecommunications, Sensors, Symmetry, Electronics, Entropy, etc. Co-Chair/committee member: InterSys / IMS 2024 (by ITMO University), UNAI at ISMAR 2021-2023, ICWE 2021, ICWE 2019 (PC Co-Chair), IHCI (since 2017), etc.

Selected Publications

1. A. Kozin, A. Gerasimov, M. Bakaev, A. Pashkov, O. Razumnikova (2023). **Automating Stimulation Frequency Selection for SSVEP-Based Brain-Computer Interfaces**. Algorithms, 16(11), 502.
2. M. Bakaev, S. Heil, V. Khvorostov, M. Gaedke (2023). **How Many Data Does Machine Learning in Human-Computer Interaction Need?: Re-Estimating the Dataset Size for Convolutional Neural Network-Based Models of Visual Perception**. IT Professional, 25(2), P. 23-29.
3. A. Davidov, O. Razumnikova, M. Bakaev (2023). **Nature in the Heart and Mind of the Beholder: Psycho-Emotional and EEG Differences in Perception of Virtual Nature Due to Gender**. Vision, 7(2), 30.
4. M. Bakaev, S. Heil, M. Gaedke (2023). **A Reasonable Effectiveness of Features in Modeling Visual Perception of User Interfaces**. Big Data & Cognitive Computing, 7(1), 30.
5. O. Razumnikova, M. Bakaev (2022). **Age-Related Changes and Reorganization of Creativity and Intelligence Indices in Schoolchildren and University Students**. Journal of Intelligence, 10(3), 52.
6. M. Bakaev et al. (2022). **Benchmarking Neural Networks-Based Approaches for Predicting Visual Perception of User Interfaces**. Lecture Notes in Artificial Intelligence, 13336: AI in HCI. P. 217-231.
7. M. Bakaev et al., M. Speicher, J. Jagow, S. Heil, M. Gaedke (2022). **We Don't Need No Real Users?! Surveying the Adoption of User-less Automation Tools by UI Design Practitioners**. Lecture Notes in Computer Science, 13362: Web Engineering. P. 406-414.
8. S. Heil, M. Bakaev, M. Gaedke (2021). **Web user interface as a message: power law for fraud detection in crowdsourced labeling**. Lecture Notes in Computer Science, 12706: Web Engineering. P. 88-96.
9. M. Bakaev, O. Razumnikova (2021). **What makes a UI simple? Difficulty and complexity in tasks engaging visual-spatial working memory**. Future Internet, 13 (1). P. 1-21.
10. M. Bakaev et al. (2020). **I Don't Have That Much Data! Reusing User Behavior Models for Websites from Different Domains**. Lecture Notes in Computer Science, 12128: Web Engineering. P. 146-162.
11. M. Bakaev, V. Khvorostov (2019). **Case-based genetic optimization of web user interfaces**. Lecture Notes in Computer Science, 11964: Perspectives of System Informatics. P. 10-25.
12. M. Bakaev et al. (2019). **Data compression algorithms in analysis of UI layouts visual complexity**. Lecture Notes in Computer Science, 11964: Perspectives of System Informatics. P. 167-184.
13. E. Boychuk, M. Bakaev (2019). **Entropy and compression based analysis of web user interfaces**. Lecture Notes in Computer Science, 11496: Web Engineering. P. 253-261.