Alexandra (Sasha) Vtyurina

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in avtyurina

Computer Science PhD. Voice-based search interfaces, conversational assistants, quantitative and qualitative data analysis, user research.

WORK EXPERIENCE

ZuvaAI (prev. Kira Systems), Research Scientist for User Behaviour *May 2020 - Present*
Toronto, Canada
Quantitative analysis of user event logs to distill high-level user behaviour patterns. Designed and conducted internal and external user studies. Qualitative analysis of user interviews to help prioritise the process of development.

Microsoft Research, Research Intern *Jun - Sept 2018*
Redmond, WA, USA
Developed a voice-based system prototype to help mitigate issues of online web browsing by people who are blind.

Microsoft Research, Research Intern *Jun - Sept 2017*
Redmond, WA, USA
Designed and conducted a research study to understand the pitfalls of using a voice-based conversational assistant during the process of cooking a culinary recipe.

Tochka Kipenia, Objective-C Developer *Apr - Aug 2014*
Rostov-on-Don, Russia
Developed a tool that provides assistance and partial automation of manual testing.

Microsoft Research, Research Intern *Jun - Sept 2013*
Redmond, WA, USA
Developed a Windows Phone application that included a speech recognition unit.

Kogan Institute for Neurocybernetics, Junior Researcher *May 2012 - Mar'14*
Robotics and Machine Vision group, Rostov-on-Don, Russia
Automated monitoring of airplane pilots' movements to detect signs of fatigue and tiredness.

EDUCATION

PhD, Computer Science *2014 - 2021*
University of Waterloo, Canada
Thesis topic: Designing voice-based interactions for advanced information seeking tasks.
Advisors: Charles Clarke, Edith Law

MMath, Computer Science *2011-2013*
Southern Federal University, Russia
Thesis title: Video-based Analysis of Human Body Motion.
Advisors: Sergey Anishenko and Vitaly Bragilevsky

BSc, Applied Math and Computer Science *2007-2011*
Southern Federal University, Russia
Thesis title: Maze Navigation Using Computer Vision.
Advisor: Vitaly Bragilevsky

SELECT PUBLICATIONS

- **Vtyurina A** *Supporting Voice-Based Natural Language Interactions for Information Seeking Tasks of Various Complexity* (Doctoral dissertation). // Univeristy of Waterloo, Waterloo, ON. 2021. 🗎
- **Vtyurina A**, Clarke C, Law E, Trippas JR, Bota H. *A Mixed-Method Analysis of Text and Audio Search Interfaces with Varying Task Complexity.* // ICTIR 2020. 🗎
- **Vtyurina A**, Fourney A, Morris MR, Findlater L, White RW. *VERSE: Bridging Screen Readers and Voice Assistants for Enhanced Eyes-Free Web Search.* // ASSETS 2019. 🗎
- **Vtyurina A**, Fourney A. *Exploring the Role of Conversational Cues in Guided Task Support with Virtual Assistants.* // CHI 2018. 🗎
- **Vtyurina A**, Savenkov D, Agichtein E, Clarke C. *Exploring Conversational Search With Humans, Assistants, and Wizards.* // Late-Breaking Work, CHI 2017. 🗎
- **Vtyurina A**, Clarke C. *Let me Google it for you.* // Second WebQA workshop on SIGIR 2016.
- **Vtyurina A**, Clarke C. *WaterlooClarke: TREC 2016 LiveQA Track.* // TREC 2016.
- Sarrafzadeh B, **Vtyurina A**, Lank E, Vechtomova O. *Knowledge Graphs versus Hierarchies: An Analysis of User Behaviours and Perspectives in Information Seeking.* // In Proceedings of the 2016 ACM on Conference on Human Information Interaction and Retrieval 2016 Mar 13 (pp. 91-100). ACM.
- **Vtyurina A**, Dey A, Sarrafzadeh B, Clarke C. *WaterlooClarke: TREC 2015 LiveQA Track.* // TREC 2015.
- **Vtyurina A**, Anishchenko S, Petrushan M, Shaposhnikov D. *Video-based analysis of human motor activity for functional state estimation.* // In Proc. XVI International Conference on Neurocybernetics, 2012, Rostov-on-Don, Russia.

TECHNICAL SKILLS

Languages	Python, SQL, C#, Java
Tools	pandas, numpy, Google Cloud Platform, scikit-learn, ggplot, matplotlib
Fluent in	English, Russian