

Alexey Reznichenko

Max Planck Institute for Software Systems
Gottlieb-Daimler-Strasse 49
D-67633 Kaiserslautern
Germany

Phone: +49 631 9303 9622
E-mail: areznich@mpi-sws.org
<http://www.mpi-sws.org/~areznich>

RESEARCH INTERESTS Networked and P2P systems, privacy issues in online advertising systems

EDUCATION **Doctor of Philosophy** in Computer Science Pursuing
Max Planck Institute for Software Systems, Kaiserslautern, Germany
Research Topic: *Privacy-preserving online advertising*
Advisor: Paul Francis

Master of Science in Computer Science August 2009
Saarland University, Saarbrücken, Germany
Thesis: *Design and implementation of a collaborative content downloading system*
Advisor: Krishna Gummadi

Master of Science in Physics *summa cum laudé* September 2007
Voronezh State University, Voronezh, Russia
Majors: Radio-Physics and Information Systems

Bachelor of Science in Physics *summa cum laudé* June 2005
Voronezh State University, Voronezh, Russia
Majors: Radio-Physics and Information Systems

ACADEMIC EXPERIENCE **Ph.D. Candidate** advised by Paul Francis June 2009 - Present
Max Planck Institute for Software Systems, Kaiserslautern, Germany

PrivAd: Practical Privacy in Online Advertising

Contributed to the design and evaluation of PrivAd - a decentralized Do-Not-Track compliant advertising system. The goal of the PrivAd project is to provide a high degree of behavioral targeting while preserving user privacy. The system is based on two main principles: the private information is kept on the user machine, the information that leaves user machine is proxied through an intermediary. No entity in the system is able to obtain enough information to violate user privacy. Contributed to the design of the original auction model for DNT compliant advertising systems, proposed several extensions and improvements over the base auction design. Analyzed different auctions designs in terms of privacy risks, potential attack vectors and the impact on the targeting quality and revenue streams.

Graduate student advised by Krishna Gummadi September 2007 - May 2009
Saarland University and MPI-SWS, Saarbrücken, Germany

Collaborative BitTorrent (CBT)

Designed and implemented an extension to the BitTorrent protocol that allows users - friends who are willing to share their bandwidth with each other - to team up and engage in a collaborative distributed job to speed up the process of downloading a piece of content. Complementary resources provided by friends enabled CBT clients to achieve a significant improvement in the download performance. Built and evaluated a prototype on top of the Azureus BitTorrent client.

INDUSTRIAL
EXPERIENCE

Software Engineering Intern

Summer 2011

Google, Zurich, Switzerland

Designed, implemented and deployed a service that tries to find and extract useful signal from the bulk of user-generated comments on YouTube. This service allows to retrieve a large set of comments for a youtube video, a list of videos or a user channel, apply a number of ranking and sorting methods to this set (e.g., relevance-based ranking, sentiment-based ranking, etc.) and finally select a subset of comments according to a chosen criterion.

Software Engineering Intern

Summer 2010

Google, Munich, Germany

Contributed to the **Scripting Layer for Android (SL4A)** project whose goal is to enable users to edit and execute scripts directly on their Android devices. Extended SL4A functionality with concurrent execution of multiple scripts, ability to distribute interpreters and scripts as stand-alone APKs, enhanced UI and performance, added a number of supported APIs.

Software Developer

February 2005 - March 2007

Siemens IT Solutions and Services, Voronezh, Russia

Developed Human Resources reporting tools in SAP R/3 with ABAP/4, re-implemented and updated HR data processing toolbox in Java.

PUBLICATIONS

Auctions in Do-Not-Track Compliant Internet Advertising, in *Proceedings of the 18th ACM Conference on Computer and Communications Security (CCS)*, 2011
with S. Guha and P. Francis

Serving Ads from localhost for Performance, Privacy, and Profit, in *Proceedings of the 8th Workshop on Hot Topics in Networks (HotNets)*, 2009
with S. Guha, H. Haddadi and P. Francis

Privad: Rearchitcting Online Advertising for Privacy, *Technical Report*, 2009
with S. Guha, B. Cheng, H. Haddadi and P. Francis

Design and Implementation of a Collaborative Content Downloading System,
Master's Thesis, Department of Computer Science, Saarland University, July 2009

TEACHING
EXPERIENCE

Teaching Assistant, Operating Systems, Saarland University

Summer 08

Teaching Assistant, Software Engineering, Saarland University

Winter 07/08

LANGUAGES

Russian (native), English (fluent), German (working knowledge)

REFERENCES

Available upon request