

OLGA GADYATSKAYA

6, rue Coudenhove-Kalergi • Luxembourg, L-1359
+352-4666-44-5506 • olga.gadyatskaya@uni.lu

EXPERIENCE

SnT, University of Luxembourg

Research Associate

July 2014 - Present

Luxembourg, Luxembourg

- Research in Android system security: scalable identification of repackaged and malicious applications; automated app code analysis for security.
- Research in risk assessment for socio-technical systems: automated generation of attacks from socio-technical system models and selection of best security controls.
- Representation of University of Luxembourg as a partner in the EU research project TREsPASS.
- Co-supervision of students; supervision of a scientific developer.
- Collaboration on national and international project proposals.

University of Trento

Postdoctoral Researcher

April 2009 - June 2014

Trento, Italy

- Research in Android system security: scalable identification of repackaged applications; trusted provenance scheme for apps.
- Research in Java Cards: security for multi-application smart cards with untrusted third-party applications.
- Representation of University of Trento as a partner in the EU research project SecureChange and the EU coordination and support action project SecCord.
- Co-supervision of students; supervision of a scientific developer.

Inst. of Comp. Mathematics and Math. Geophysics

Junior Researcher

October 2008 - April 2009

Novosibirsk, Russia

- Research, development and empirical evaluation of random graph connectivity metrics.

Novosibirsk State University

Lecturer

Fall semesters 2005 - 2008

Novosibirsk, Russia

- Lectures and practical exercises for the Computer Literacy course (BSc).

EDUCATION

Novosibirsk State University

PhD in Mathematics

November 2008

Novosibirsk, Russia

Thesis title: *Analysis of the expected value of the number of disconnected vertex pairs in random graphs and its exploration in optimal network structure selection*

Novosibirsk State University

Specialist degree in Mathematics

June 2005

Novosibirsk, Russia

5 years program

PROJECT ACQUISITION AND MANAGEMENT

COMMA

April 2016 - March 2019

Fonds National de la Recherche (FNR) Luxembourg

- I am the principal investigator in this project funded under the FNR Junior CORE scheme.
- The project applies code analysis, code coverage measurement, machine learning and program slicing to detection of evasive, context-sensitive Android malware samples.
- Contribution from the FNR 690,000 euro.

DroidMod

January 2017 - December 2020

FNR Luxembourg

- I am a co-proposer of this Aides a la Formation-Recherche (AFR) project that will fund a PhD candidate.
- The project will focus on developing and validating semantic models for Android apps.

TEACHING EXPERIENCE

Teaching Assistant

Fall semesters 2014, 2015

Introduction to IT Security

BSc level, University of Luxembourg

- Giving lectures on selected topics (security evaluation and administration, Android security, web security).
- Preparing and grading homework exercises.

Teaching Assistant

Spring semester 2015

Information Security Management

Prof. MSc, University of Luxembourg

- Preparing and grading homework exercises; giving a lecture on web security.

Teaching Assistant

Fall semesters 2010, 2011, 2012

Computational Complexity

MSc level, University of Trento

- Giving lectures on selected topics; preparing and grading homework exercises.

Lecturer

October 2005 – December 2008

Computer Literacy

BSc level, Novosibirsk State University

- Giving lectures and practical exercises on computer basics (Pascal, web design, MS Office).

SUPERVISION OF STUDENTS

Alexia Cluzeau *Assessing impact of attacks and defenses via sensitivity analysis on attack-defense tree.*

Bachelor thesis in Computer Science, defended on 29/06/2016.

Cedric Muller *Risk analysis for socio-technical systems. Approach to automated selection of preventive security controls in attack-defence trees.*

Master thesis in Management of the Security of Information systems, defended on 29/06/2016.

Andra-Lidia Lezza *Resource-based detection of repackaged Android applications. A practical assessment using machine learning methods.*

Master thesis in Information and Computer Sciences, defended on 05/09/2016.

SELECTED PUBLICATIONS

- O. Gadyatskaya, A.-L. Lezza and Y. Zhauniarovich *Evaluation of Resource-based App Repackaging Detection in Android* in Proc. of NordSec (2016)
- Y. Zhauniarovich and O. Gadyatskaya *Small changes, big changes: An updated view on the Android permission system* in Proc. of RAID (2016)
- M. Ford, M. Fraile, O. Gadyatskaya, R. Kumar, M. Stoellinga and R. Trujillo-Rasua *Using attack-defense trees to analyze threats and countermeasures in an ATM: A case study* in Proc. of PoEM (2016)
- O. Gadyatskaya, C. Harpes, S. Mauw, C. Muller and S. Muller *Bridging two worlds: Reconciling practical risk assessment methodologies with theory of attack trees* in Proc. of GraMSec (2016)
- O. Gadyatskaya, K. Labunets and F. Paci *Towards Empirical Evaluation of Automated Risk Assessment Methods* in Proc. of CRiSIS (2016)
- O. Gadyatskaya, R. Jhawar, P. Kordy, K. Lounis, S. Mauw and R. Trujillo-Rasua *Attack Trees for Practical Security Assessment: Ranking of Attack Scenarios with ADTool 2.0* in Proc. of QEST (2016)
- O. Gadyatskaya, R.R. Hansen, K.G. Larsen, A. Legay, M.C. Olesen and D.B. Poulsen *Modelling Attack-defense Trees Using Timed Automata* in Proc. of FORMATS (2016)
- Y. Zhauniarovich, M. Ahmad, O. Gadyatskaya, B. Crispo, F. Massacci *StaNynA: Addressing the Problem of Dynamic Code Updates in the Security Analysis of Android Applications* in Proc. of ACM CODASPY (2015)
- O. Gadyatskaya *How to Generate Security Cameras: Towards Defence Generation for Socio-Technical Systems* in Proc. of GraMSec (2015)
- Y. Zhauniarovich, A. Philippov, O. Gadyatskaya, B. Crispo, F. Massacci *Towards Black-Box Testing of Android Apps* in Proc. of Software Assurance Workshop at ARES (2015)
- O. Gadyatskaya, F. Massacci and Y. Zhauniarovich *Security in the Firefox OS and Tizen Mobile Platforms* in IEEE Computer (2014)
- Y. Zhauniarovich, O. Gadyatskaya, B. Crispo, F. La Spina, E. Moser *FSquaDRA: Fast Detection of Repackaged Applications* in Proc. of DBSec (2014)
- Y. Zhauniarovich, O. Gadyatskaya, B. Crispo *Enabling Trusted Stores for Android* in Proc. of ACM CCS Demo Session (2013)
- O. Gadyatskaya, F. Massacci, Q.-H. Nguyen, B. Chetali *Load Time Code Validation for Mobile Phone Java Cards* in Journal of Information Security Applications (2013)
- O. Gadyatskaya, F. Massacci, A. Philippov *Security-by-Contract for the OSGi Platform* in Proc. of IFIP SEC (2012)