Curriculum Vitae
Jelena Milosevic

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Education

02/13 - Present PhD Student at Advanced Learning and Research Institute ALaRI, Faculty of Informatics, University of Lugano, Lugano, Switzerland
- Works on development of an effective and efficient methodology for mobile malware detection. The main focus is on identification of the most indicative features to be monitored on a mobile device in order to detect malware and usage of detection algorithms of low complexity, suitable for detection on device. Especially interested in the application of the methodology on mobile devices running Android operating system and resource-constrained IoT devices.

9/09 - 03/11   Master in Electrical and Computer Engineering, Major in Telecommunication Systems, Faculty of Technical Sciences, University of Novi Sad, Novi Sad, Serbia
- Thesis: "Implementation of LT codes on TelosB platform"
- The goal of the thesis was to enable reliable data transmission within user applications on an erasure channel, by using Luby Transform, near-optimal erasure correcting codes, porting them on TelosB nodes, and testing system performance under real, error-present conditions.
- Thesis Mark: 10/10
- GPA: 9.67/10

09/05 - 09/09   Bachelor in Electrical and Computer Engineering, Major in Communication Technologies and Signal Processing, Faculty of Technical Sciences, University of Novi Sad, Novi Sad, Serbia
- Thesis: Components and Structure of Optical Communication Systems
- Thesis Mark: 10/10
- GPA: 9.78/10

Professional Experience

2/15 – 5/15: Intern at IBM Cyber Security Center of Excellence, Beer Sheva, Israel;
- Implementation of novel anomaly detection algorithms for time series analysis and their application in data related to network anomalies and anomalous behavior of power grid and heart bits.

10/13 – 2/14: PhD Student at ALaRI, Faculty of Informatics, University of Lugano, Lugano, Switzerland;
- Development of advanced methods for prediction of patients with Paroxysmal Atrial Fibrillation (the most common heart arrhythmia) problem. The main focus was on development of an effective solution from one side, and from the other an efficient one due to the constrained environment of portable medical devices.

5/12 – 2/13: Research Assistant at ALaRI, Faculty of Informatics, University of Lugano, Lugano, Switzerland;
- Representation of security requirements in embedded systems, using IBM Rational Rhapsody tool, and development of a design methodology that allows considering security as an additional dimension during design space exploration process.

4/11 - 4/12: DSP Audio Embedded Software Engineer at Zesium Mobile Software Development, Novi Sad, Serbia
- Porting, testing and optimization of the most frequently used audio and video codecs for MIPS platform. Co-working with RT-RK Institute for Computer Based Systems, Novi Sad, Serbia.

Publications

Conference Papers

1. Milosevic, J., Ferrante A., Malek M. "Trojan Families Identification Using Dynamic Features and Low Complexity Classifiers", The 24th EICAR Annual Conference on Trustworthiness in IT Security Products EICAR-2016, Nuremberg, Germany

2. Milosevic, J., Ferrante A., Malek M. "MalAware: Effective and Efficient Run-time Mobile Malware Detector", The 14th IEEE International Conference on Dependable, Autonomous and Secure Computing DASC-2016, Auckland, New Zealand

3. Milosevic, J., Malek M., Ferrante A. 'A Friend or a Foe? Detecting Malware Using Memory and CPU Features', The 13th International Conference on Security and Cryptography SECRYPT-2016, Lisbon, Portugal

4. Milosevic, J., Ferrante A., Malek M. "What Does the Memory Say? Towards the Most Indicative Features For Efficient Malware Detection", The 13th Annual IEEE Consumer Communications & Networking Conference CCNC-2016, Las Vegas, NV, USA

5. Milosevic, J., Dittrich A., Ferrante A., Malek M., Quiros C.R., Braojos R., Ansaloni G., Atienza D. "Risk Assessment of Atrial Fibrillation: a Failure Prediction Approach", Computing in Cardiology 2014, Cambridge, MA, USA

6. Ferrante, A., Kaitovic I., Milosevic J., "Modelling Requirements for Security-enhanced Design of Embedded Systems", ICETE SECRYPT 2014, Vienna, Austria

7. Ferrante, A., Milosevic J., Janjusevic M., "A Security-enhanced Design Methodology for Embedded Systems", ICETE SECRYPT 2013, Reykjavik, Iceland

8. Milosevic J., "Implementation of LT codes on TelosB platform", 19th Telecommunications Forum TELFOR 2011, Belgrade, Serbia (Awarded by TELENOR Foundation as the best student paper)

Book Chapters

1. Milosevic, J., Regazzoni F., Malek M. "Malware Threats and Solutions for Trustworthy Mobile Systems Design", To Appear in Hardware Security and Trust: Design and Deployment of Integrated Circuits in a Threatened Environment, Springer, 2017

Workshop Papers:

1. Ferrante A., Medvet E., Mercaldo F., Milosevic J., Visaggio C.A. "Spotting the Malicious Moment: Characterizing Malware behaviour Using Dynamic Features", The Fifth International Workshop on Security of Mobile Applications IWSMA-2016, Salzburg, Austria

2. Milosevic, J., Ferrante A., Malek M. "Can we Achieve both Privacy Protection and Efficient Malware Detection on Smartphones?", First Interdisciplinary Cyber Research Workshop 2015, Tallinn, Estonia

3. Milosevic, J., Ferrante A., Regazzoni F. "Security Challenges For Hardware Designers Of Mobile Systems", First Workshop On Mobile Systems Technologies 2015, Milan, Italy

4. Milosevic, J., Dittrich A., Ferrante A., Malek M., "A Resource-optimized Approach to Efficient Early Detection of Mobile Malware", 3rd International Workshop on Security of Mobile Applications – IWSMA 2014, Fribourg, Switzerland

Posters:

1. Milosevic, J., Ferrante A., Malek M. "AndTrojanID: Android Trojans Detection Using Dynamic Features", Workshop on Trustworthy Manufacturing and Utilization of Secure Devices-Collocated with DATE 2016, Dresden, Germany

2. Milosevic, J., Ferrante A., Malek M. "A General Practitioner or a Specialist for Your Infected Smartphone?", 36th IEEE Symposium on Security and Privacy 2015, San Jose, CA, USA

3. Milosevic, J., Regazzoni F. 'Efficient Malware Detection', Trudevice School 2014, Lisbon, Portugal

Invited Talks

- "Early Detection of Mobile Malware", 25.06.2015, University of Passau, Passau, Germany

Society Memberships and Editorial Duties

- Member of the Institute of Electrical and Electronics Engineers IEEE
- Member of the International Electrical Engineering Student's Association EESTEC
- Journal Reviewer: ACM Computing Surveys, Pervasive and Mobile Computing
- Conference Sub-Reviewer: IEEE International Conference on Communications ICC 2017, IEEE International Symposium on Workload Characterization IISWC 2016, IEEE International Symposium on Hardware Oriented Security and Trust HOST 2016, International Conference on Security and Cryptography SECRYPT 2016, International Conference On Computer Aided Design ICCAD 2016, IEEE ICC 2016, Design, Automation & Test in Europe DATE 2015, IEEE ICC 2015, ACM International Conference on Computing Frontiers 2015, SECRYPT 2015, DATE 2014, First Workshop on Cryptography and Security in Computing Systems CS2-2014, Fourth International Conference on Security, Privacy, and Applied Cryptography Engineering SPACE 2014, SECRYPT 2014, SECRYPT 2013

Courses and Training

07/15 Cyber Security Summer School, Tallinn University of Technology, Tallinn, Estonia

09/14 Mobile Malware: Theory and Practice, 2nd SysSec Summer School, VU University Amsterdam, Amsterdam, Netherlands

07/14 Training School on Trustworthy Manufacturing and Utilization of Secure Devices, University of Lisbon, Lisbon, Portugal

03/14 Computational Stochastic Methods Course, Faculty of Informatics, USI-Lugano, Switzerland

09/13 Building Trust in the Informatics Age, Summer School on Security and Privacy, Cagliari, Italy

07/13 Persyval-Lab Summer School on Cyber-Physical Systems, Grenoble, France

03/12 Embedded Linux Training, RT-RK Institute for Computer Based Systems, Novi Sad, Serbia

06/11 Advanced C Programming for Embedded Systems Training, RT-RK Institute for Computer Based Systems, Novi Sad, Serbia

Computer Skills

- Programming languages: C, Java, Assembler
- Development environnements: Intellij Idea, Eclipse, Matlab
- Operating systems: Unix/Linux, Mac OS, Android OS

Languages

- Serbian: Native
- English: Proficient
- Italian: Upper Intermediate
- German: Intermediate
- Russian, Spanish: Elementary

Teaching Assistance

- Intelligence for cyber-physical systems, Academic Year 2016/2017, Master of Science in Cyber Physical and Embedded Systems
- Information Security, Academic Years 2015/2016, 2016/2017, Master of Science in Informatics
- Designing and Managing Embedded Applications, Academic Year 2014/2015, Master of Science in Embedded Systems Design
- Algorithms and Complexity, Academic Year 2015/2016, Master of Science in Informatics

Hobbies

- Reading, Travelling, Painting