Roland Bogosi | Curriculum Vitæ

☎ +40 743 510 358 • ✉ roland@rolisoft.net • 🌐 rolisoft.net • in RolandBogosi
🅂 RoliSoft • ⌨ RoliSoft

Technical Skills

Languages: C#, Java, C/C++, Go, Python, PHP, JavaScript, SQL, VHDL, CAPL
Main Focus: Security research; Web, mobile and desktop development; System architecture design

Experience

Lateral Inc   **Târgu-Mureș**
Senior Security Engineer   *April 2017–Present*
Leading a one-man army in the field of security, responsible for security code reviews, penetration tests, incident response, aiding with GDPR/PCI/HIPAA compliance, and holding internal employee trainings regarding secure coding best practices.

Lateral Inc   **Târgu-Mureș**
Senior Software Engineer   *September 2016–Present*
Working with leading technologies in breakthrough research fields and in direct communication with high-profile clients. Pitched projects for the internal incubator and lead their development to marketable products.

Lynx Solutions SRL   **Târgu-Mureș**
Software Engineer Internship   *July 2014–August 2014*
Took leadership, oversaw and helped fellow interns through their journey of implementing the internship project; solely developed alternative implementation and wrote project requirements documentation as going above-and-beyond.

Freelancer   **Târgu-Mureș**
Full Stack Engineer   *May 2013–August 2016*
Worked as a freelance full stack developer for various clients. Projects included developing and maintaining sites with 15 million unique visitors, re-architecting projects to address scalability issues, identifying and fixing performance bottlenecks in existing codebases, penetration tests and mitigation, screen-scraping where protections had to be bypassed or implemented.

Education

Sapientia EMTE, Faculty of Technical and Human Sciences   **Târgu-Mureș**
B.Sc. (Hons.) Computer Engineering   *September 2012–July 2016*
Gave multiple presentations in various fields as an extracurricular activity; attended both XIV. and XV. Scientific Students' Associations Conference with projects which both separately won awards; participated in four research groups with published scientific papers; graduated with a thesis in the field of Information Security, which received the maximal grade of 10.

Certifications

Offensive Security Certified Expert (OSCE), Offensive Security   *October 2018*

Offensive Security Certified Professional (OSCP), Offensive Security   *May 2017*

Microcontrollers in Automotive Applications, Continental AG   *January 2016*

Awards, Honors & Media Attention

Hack the Box "Best of the Best" Award   *July 2017*
Achieved and maintained 1st place on the Hack the Box OSCP-like CTF game. Solved unintentional/unfinished challenges in order to get ahead, which were thought to be unhackable due to their unfinished state.

CERT-RO Coordinated Vulnerability Disclosure Program Pioneer   *March 2017*
Part of personal project endeavors and academic research, autonomously analyzed various banking infrastructure and **found critical issues** in at least **two leading Romanian banks**, of the *authentication and authorization bypass* level. Followed **responsible disclosure procedures**, notified the banks and the local CERT of these incidents. What followed was media attention in TV, radio, and online news, after **CERT-RO** published a congratulatory press release for being the first researcher to responsibly report to them: https://goo.gl/D3w8b3

XV. Scientific Students' Associations Conference Award   *April 2016*
Awarded for the "Black-Box Penetration Testing and Autonomous Vulnerability Assessment" research.

XIV. Scientific Students' Associations Conference Award   *April 2015*
Awarded for the "Sentiment Analysis of Social Networks" research.

Languages

Hungarian: Native proficiency
English, Romanian: Full professional proficiency

Publications

Black-Box Penetration Testing and Autonomous Vulnerability Assessment: Roland Bogosi; *XV. Scientific Students' Associations Conference*, 2016.

Sentiment Analysis of Social Networks: Katalin Tünde Jánosi-Rancz, Zoltán Kátai and Roland Bogosi; *Acta Universitatis Sapientiae, Informatica,* vol. 7, no. 2, pp. 186–199, 2015.

Deadbeat Disturbance Observer-based Rate Control in Wireless Networks for Moving Agents: Lőrinc Márton, Tamás Vajda and Roland Bogosi; *Research conducted under grant by Accenture Industrial Software.*.

Linking Formal and Informal Structures Based on Faculty Members' Email Communication Patterns: Zoltán Kátai, Katalin Tünde Jánosi-Rancz and Roland Bogosi; *Pending publication.*

Clustering in Mathematical Databases: Szép Zoltán and Roland Bogosi; *XV. Scientific Students' Associations Conference*, 2016.

Notable Open-Source Projects

Windows Subsystem for Linux Distribution Switcher: Project born out of sheer curiosity once WSL was announced, to see if I could swap the distribution shipped with WSL. A simple-to-use **Python** script was developed afterwards as a result, which was the first of its kind, and could swap in any distribution from an **ISO**, **rootfs tarball** or nearly any image on the **Docker Hub**. The repository has **1,400 stars** and 140 forks. It has been featured in several tutorial sites, including **kali.org**'s initial way to get **Kali Linux in WSL** before the app store package, and **acknowledged by Microsoft** as a "cool community project": https://goo.gl/GkVkAm

Host Scanner: Developed as an implementation companion to my bachelor's thesis with the purpose to perform **autonomous vulnerability assessment** using both active and passive scanning, or by analyzing earlier reports of 3rd-party tools. The features and implementation techniques are unique to this application, a fact which was validated by an **award-winning** presentation at the **XV. Scientific Students' Associations Conference**. The project was highlighted by several tutorial sites, including one of the supported data providers, **Mr. Looquer**, as a creative way to use their data. The application was developed in **C++** with strong **cross-platform** support with OS-specific implementations for *Linux*, *Windows* and *BSD/Darwin* systems. The various helper scripts were developed in **Go**.

RS TV Show Tracker: TV show tracking application with a unique feature set, with monthly updates pushed to **135,700 active daily users** (peak as of May 2015). The application was developed in **C#** with an interface in **WPF**. Development started in **February 2010** and halted in **January 2016** due to shifting priorities and avoidance of potential legal issues.

Full list of projects available on my GitHub profile and/or lab.rolisoft.net/projects.html

Interests & Early Personal Development

Self-teaching is an important aspect of my lifestyle, I constantly **try out new languages**, **new technologies**, **new practices**, and **re-do old projects**, where I challenge myself to do it much better this time, by setting much higher goals.

First exposure to the world of programming via PHP at the age of **11** followed by publishing the first dynamic webpage at the age of **12**. Published first **desktop application**, at the age of **13**, which utilized **databases**, **regular expressions**, **networking** and **screen-scraping**. Application was published to **Softpedia**, where it was accepted and reviewed by their staff, leading to a few hundred downloads during its lifetime. Received first income from **Google AdSense** at the age of **14**. Used **neural networks**, in order to train a software to **recognize** numbers and letters that appear on a webcam-provided image in **real-time**, at the age of **16**. Developed first **autonomous web-service** that relied on user-contributed data at the age of **17**, a **recommendation system**, which provides **tailored recommendations** based on a user's preference list.

Full timeline available at rolisoft.net/#education