

Dr. Radu BANABIC

VP of Engineering

CodeTickler Sàrl
Fondation EPFL Innovation Park
Bâtiment D
CH-1015 Lausanne

radu@cyberhaven.io
<https://www.linkedin.com/in/radubanabic>

Summary

I am interested in software systems security and reliability. I am Co-founder and VP of Engineering at Cyberhaven, where we are building a security solution that protects sensitive data from unauthorized access, tampering, and theft in all forms even when endpoints are breached. Our technology has been proven in the DARPA Cyber Grand Challenge and in external evaluations. Before Cyberhaven, I obtained my PhD from EPFL, Switzerland, where I developed tools and approaches that automatically find bugs and vulnerabilities in large systems such as Apache httpd, MySQL, BIND, or PBFT. I was granted the IBM PhD Fellowship Award for my research.

Experience

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| 2015 - | Co-founder & VP of Engineering
<i>CodeTickler Sàrl dba Cyberhaven</i> , Lausanne, Switzerland
I work on building next-generation software security solutions. |
| 2009 - 2015 | Research Assistant
<i>École Polytechnique Fédérale de Lausanne (EPFL)</i> , Lausanne, Switzerland
I worked on research in the fields of system reliability and security, with an emphasis on distributed systems. |
| 2012 | Internship
<i>IBM Research</i> , Zurich, Switzerland
I worked on a distributed storage algorithm designed for cloud computing. My work involved both theoretical aspects, such as designing and proving the algorithm, and practical aspects, as I implemented the algorithm in an existing framework. |
| 2008, 2009 | Summer Internship
<i>École Polytechnique Fédérale de Lausanne (EPFL)</i> , Lausanne, Switzerland
I worked with Prof. George Candea on automated fault injection. I implemented a test controller that decides what, when and where to inject a fault in a system under test. |
| 2008 | Research Assistant
<i>Technical University of Cluj-Napoca</i> , Cluj-Napoca, Romania
I developed and implemented a model for detecting automobile window pillars in live images, in the scope of a research project in cooperation with Volkswagen AG. |
| 2007-2008 | C++ Developer
<i>Fortech</i> , Cluj-Napoca, Romania
I was a software developer for a video management system and for enhancing the communication server of a collaborative 3D design system. |
| 2006 | Research Assistant
<i>Technical University of Cluj-Napoca</i> , Cluj-Napoca, Romania
I implemented the A* algorithm in both software (Java) and hardware (VHDL) in the frame of the “Multiagent Hardware System” project. |

Education

2009–2015	PhD in Computer Science <i>École Polytechnique Fédérale de Lausanne (EPFL)</i> , Lausanne, Switzerland <ul style="list-style-type: none">• Topic: Reliability of distributed systems.
2005–2009	BSc. in Electrical Engineering & Computer Science <i>Technical University of Cluj–Napoca</i> , Cluj–Napoca, Romania <ul style="list-style-type: none">• Thesis: Cloud-based Fault Exploration - Automating Fault Injection.• GPA: 9.92/10.

Publications

- **R. Banabic**. Techniques for Identifying Elusive Corner-Case Bugs in Systems Software. PhD Thesis, 2015.
- **R. Banabic**, G. Candea, R. Guerraoui. Finding Trojan Message Vulnerabilities in Distributed Systems. In ASPLOS 2014. (Acceptance rate: 22%).
- **R. Banabic**, G. Candea. Fast Black-Box Testing of System Recovery Code. In EuroSys 2012. (Acceptance rate: 15%).
- **R. Banabic**, G. Candea, and R. Guerraoui. Automated Vulnerability Discovery in Distributed Systems. In HotDep 2011.
- P. Marinescu, **R. Banabic**, and G. Candea. An Extensible Technique for High-Precision Testing of Recovery Code. In USENIX ATC 2010. (Acceptance rate: 16%).
- L. Vacariu, F. Roman, M. Timar, T. Stanciu, **R. Banabic**, O. Cret. Software and Hardware Implementation of Mobile Robot Path-planning. In WSEAS Transactions on Systems and Control Journal, Issue 2, Volume 2, February 2007.
- L. Vacariu, F. Roman, M. Timar, T. Stanciu, **R. Banabic**, O. Cret. Mobile Robot Path Planning Software and Hardware Implementations. In ECMR 2007.

Activities & Awards

2015–2016	Part of the CodeJitsu team that reached the DARPA Cyber Grand Challenge finals.
2011–2012	IBM PhD Fellowship Award.
2009–2010	EPFL PhD Fellowship.
2006	First prize at the 24-hour Axway EESTEC Olympics in Bucharest (three-person team). Qualified for the ACM SouthEastern European programming contest (three-person team).
–2005	3rd prize at the American Computer Science League (five-person team). 1st prize at the “Grigore Moisil” national programming contest. Qualified for the National Physics Olympiad (3x) and Computer Science Olympiad (1x).

Other

LANGUAGES	<i>English</i> (fluent – Cambridge Advanced English E-SOL certificate), <i>French</i> (basic), <i>German</i> (basic), <i>Romanian</i> (mother tongue).
HOBBIES	Tennis, Football, Ski, Photography, Gadgets.