

# Mircea Bardac

## Summary

Highly enthusiastic and passionate about technology, with 7+ years of experience in leading local or cross-geo teams in technical and non-technical projects, 20+ years of coding, and 10+ years in Open Source & collaborative projects. International working experience, strategy & business development oriented, customer-focused, always connecting the dots and seeking continuous improvement.

## Areas of interest

Business & Organizational Development, Team Growth & People Development  
Product Management & Developer Experience, Strategic Planning  
Full-stack IoT & Cloud Solutions, Open Source Software Development & Open Source Communities

## Skills

### Management and Leadership

- Experience leading technical teams and driving project deliverables to completion, with a great focus on people & team strengths, aligning with career development plans.
- Extensive experience leading technical & non-technical projects across multiple teams in multiple geos/divisions, working with internal and external stakeholders.
- Excellent communication, interpersonal and leadership skills, with a solid understanding of business operations & support functions.

### Strategy and Project Management

- Cross-division perspective over technical projects & business operations, aiming to maximize return of investment for implemented strategies & projects.
- Experience driving projects to completion, setting projects goals, prioritization, ROI assessment, performing risk assessments, designing and implementing risk mitigation plans.

### Technical Skills

- Experience in IoT & distributed system full-stack architecture design, implementation, and testing.
- Deep understanding of system architecture and client/server programming, systems programming, generic & distributed algorithms.
- Experience with application & system performance monitoring/analysis/optimizations.
- Experience with code versioning tools (Git) and software development models.
- Linux experience (10+ years), advanced knowledge of Operating System internals, configuration and administration skills.
- Advanced scripting in Bash & Python.
- Experience programming in multiple languages: C/C++, Java, x86 assembly.

---

## Experience

### 2015 - present **Team Lead & Software Architect, Java IoT Optimizations Team, Intel Romania**

Ramped up a new team, including interviewing, hiring, mentoring new employees, gaining support from other teams for removing road-blocks:

- Designed and led implementation of end-to-end infrastructure for deployment, control, measurement and visualization of OpenJDK performance on Intel IoT platforms;
- Assigned and overlooked project deliverables across team members, focusing on their strengths and career development plans;
- Grew the team's influence and impact across multiple Intel projects, getting the team to be internally recognized as the "Java on IoT experts".

Lead Intel's efforts across multiple teams on enabling and optimizing Java support for Intel IoT maker and commercial platforms:

- Managed the relation of the team with the external stakeholders in the IoT Developer Kit project, Intel's IoT Group, and Intel's Software & Services Group, successfully presenting the team's results, expertise, and feedback, conveying internal messages to other teams, gathering requirements and aligning external teams with our objectives;
- Defined & aligned project roadmap with external release calendars, internal go-to-market strategies and business priorities;
- Successfully led planning, development and release for Java support in IoT Developer Kit, announced at Oracle's Java One 2015 conference (available on <http://software.intel.com/iot>);
- Contributed to internal IoT & Java strategies' design, evaluation and implementation.

### 2012 - 2014 **Program Manager, Intel Romania**

Managed Intel's university relations in Romania reporting directly to the Country Manager, with the main objective of maximizing the value of Intel's investments in the country:

- Established and maintained new programs with the university ecosystem/research partners tailored for the specific needs of the local engineering business units, and aligned with Intel's global education programs and investments;
- Led cross-functional team for the design, implementation and opening of the *Intel Student Open Lab* in UPB, Intel's largest university investment in Romania to date, laboratory used both for teaching and for supporting Intel's research programs;
- Managed the relation with the internal and external stakeholders of the Academic Program, attracting external resources and coordinating program activities with the international Intel Higher Education teams, Intel Labs divisions, and with the support business units (Legal, Finance and Marketing).

### 2008 - 2013 **Lead Researcher & Software Architect, University POLITEHNICA of Bucharest**

Designed and implemented solutions covering the full-stack as part of multiple research projects, using operating system-level virtualization, NoSQL and Peer-to-Peer technologies. Projects:

- Virtualized Peer-to-Peer Deployment Infrastructure using Linux Containers;
- Context-Aware Classification Engine using a Redis NoSQL database for context management;
- Distro Torrent Experiment for monitoring & analyzing Peer-to-Peer interactions.

Led 3 teams of student researchers (7 students) working on Android on the following topics: forensics methodologies & tools, data encryption performance evaluation, virtualization, and process isolation.

### 2008 **Software Engineering Intern at Critical Software, Porto, Portugal**

Researched qualification methods for Project xLuna. xLuna is based on a real-time operation system (RTEMS) and integrates a user-mode version of Linux running as an idle thread, thus providing the versatility of Linux while maintaining real-time capabilities. Architect and developer of an infrastructure used for test execution, report generation, and automatic campaign documentation based on code annotations.

Expertise: real-time operating systems, virtualization, testing and reporting infrastructure

---

## Experience (continued)

### summer 2007 **Software Engineering Intern** at **Google**, Mountain View, California, USA

Researched architecture optimizations for serving content ads in Google's large-scale distributed system. Analyzed infrastructure bottlenecks for serving from multi-shard MySQL databases. Designed system for serving from an in-memory NoSQL storage which is continuously synchronized with a permanent multi-shard database storage.

- Content Ads Engineering Department, Backend Development Team
- Expertise: distributed system design, C/C++ database middle-ware

### 2006 – 2012 **Project Lead & Developer** for **Tigus & Publication Finder (Chrome Extension)**

Tigus (2006 – 2010): Designed and implemented multi-component architecture for test evaluation using barcode scanning. Managed project workflow, defined development environment, coding style. Solution tested successfully for several years at multiple class exams (thousands of tests evaluated) in University POLITEHNICA of Bucharest, Automatic Control and Computers Faculty.

Publication Finder (2011 – 2012): Developed this Chrome extension used by 2000+ users for annotating web pages of research publications from digital libraries with direct links to the downloadable publications found using Google Scholar.

---

## Academic & Research Experience

### 2005 - present **Professor** at **University POLITEHNICA of Bucharest**

Faculty of Automatic Control & Computer Science, Computer Science Department, Systems Group (<http://systems.cs.pub.ro/people/mircea.bardac/>)

- Associate Professor (2012 – present), Teaching Assistant (2008 – 2012), Associate Teaching Assistant (2005 – 2008)
- Courses: Introduction to Operating Systems, Computer Networks, Operating Systems, Operating Systems (Practical), Network Services for Internet Service Providers (MSc course)

Activities (selection):

- Team Lead for the Computer Networks team (10+ people), coordinating activities & providing expertise in finishing critical team tasks, ensuring the delivery of course activities on time
- Designed virtualized infrastructure for student project evaluation for the Computer Networking and Introduction to Operating Systems courses (evaluating tasks done by each student on their own virtual machines) – 1000+ projects evaluated during 3+ years.

### 2010 - 2011 **Guest Researcher** at **Delft University of Technology**, Netherlands Electrical Engineering, Mathematics, and Computer Science Faculty

- Worked with the Parallel and Distributed Systems Group on Peer-to-Peer protocol optimizations and Peer-to-Peer data dissemination models to ensure fairness in sharing data within a swarm;
- Designed, implemented in Python/Bash, and tested a deployment & monitoring infrastructure for Peer-to-Peer swarms that used the Netherlands Distributed Supercomputing Cluster for very large, scenario-driven, Peer-to-Peer simulations with real network clients.

## Books

**2009** Co-author of **Introduction in Operating Systems** [(ro) Introducere în Sisteme de Operare]  
▪ Publisher Printech 2009, 535 pages, ISBN 978-606-521-386-9

**2007** Co-author of **Operating Systems Usage Laboratory Book** [(ro) Utilizarea Sistemelor de Operare]  
▪ Publisher Printech 2007, 374 pages, ISBN 978-973-718-788-8  
▪ Author of the chapters: Compiling, linking and application execution, File systems; Low level analysis of Operating Systems.

---

## Education

- 2008 - 2011** **PhD in Distributed Systems, University POLITEHNICA of Bucharest, Romania**  
Faculty of Automatic Control and Computers, Computer Science & Engineering Department  
Thesis title: Intelligent Strategies for Improving Resource Sharing in Peer-to-Peer Systems
- 2008 - 2010** **Master Degree in Distributed Systems, University POLITEHNICA of Bucharest, Romania**  
Faculty of Automatic Control and Computers, Computer Science & Engineering Department  
Dissertation title: Real-time Behavior Analysis in Peer-to-Peer Swarms
- 2003 - 2008** **Bachelor Degree in Computer Engineering, University POLITEHNICA of Bucharest, Romania**  
Faculty of Automatic Control and Computers, Computer Science & Engineering Department  
Dissertation topic: Qualification of real-time operating systems with paravirtualization support

---

## Certifications

- 2016** Train-the-Trainer training by Adrian Cioroianu (AC Knowledge)
- 2015** Public Speaking Training by Teodora Metiu
- 2014** Brand Strategy Training by Ștefan Liuțe, Strategy Director at Storience Brand Agency
- 2003 - 2009** Multiple technical trainings on networking, security, multi-core programming, databases

---

## Awards & Competitions (selection)

- 2010** Scaling Peer-to-Peer testing using Linux Containers – Selected Student Paper Award at the 9th RoEduNet IEEE International Conference 2010, Sibiu, Romania.
- 2005 – 2007** Participated in Student Communication Sessions on Computer Science, Pedagogy, and Psychology with projects covering test evaluation using barcodes, research on integration of first year students in the university environment, and fast learning techniques.
- 2000 – 2005** Participation in the MESE competitions (Management and Economic Simulation Exercise) organized by Junior Achievement in multiple national & international rounds. International rounds organized by Harvard Associates as Hewlett-Packard Global Business Challenge (<http://www.jaintl.org/hpgbc/>).

---

## Professional Affiliations

- ROSEdu (Romanian Open Source for Education) – founding member (2007)
- ACM

---

## Volunteering Activities

- 2009 - 2010** **Lectures on Git at the Free Development Course organized by ROSEdu**  
Created and delivered lectures on Git at the Free Development Course editions (<http://cdl.rosedu.org>) organized by Romanian Open Source for Education (ROSEdu) organization.
- 2002 – 2003, 2006** **Trainer for Junior Achievement Romania**  
Trained and provided support with general management and decision strategies to participating teams in the MESE competitions (Management and Economic Simulation Exercise) organized by Junior Achievement. Organized and supervised economic simulations exercises.
- 2003 – 2008** **Open Source community participation (nickname: IceRAM)**  
Contributed to Psi instant messenger (<http://www.psi-im.org>), a project that implements the XMPP protocol, protocol also known as Jabber: developed and maintained the Windows Installer for Psi, forums moderator, Wiki documentation maintainer, part-time developer & tester.

## **Languages**

Romanian (native speaker)

English (fluent) – English for Professional Communication Degree (2005)

French (average), Portuguese (beginner), German (beginner)

## **Leisure interests**

reading, travelling, roller-skating, dancing, interior design

**Last update** July 1<sup>st</sup>, 2016