

Curriculum Vitae

Lubomír Bulej

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Personal data

Born	December 11, 1977
Contact	+420-951554267 lubomir.bulej@d3s.mff.cuni.cz http://d3s.mff.cuni.cz/~bulej
Identifiers	ResearcherID: G-3045-2014 ORCID: 0000-0002-4573-6084 Scopus Author ID: 8243498700
Employment	Department of Distributed and Dependable Systems Faculty of Mathematics and Physics, Charles University Malostranské náměstí 2/25, 118 00 Praha 1, Czech Republic

Research interests

Dynamic program analysis (accurate profiling, analysis composition, application instrumentation).
Software performance (performance regression testing, performance awareness in software development, performance modeling).

Education

2002–2007	Doctoral studies at Faculty of Mathematics and Physics, Charles University, Czech Republic. Doctoral thesis: “Connector-based Performance Data Collection for Component Applications”.
1994–2002	Master studies at Faculty of Electrical Engineering, Czech Technical University, Czech Republic. Master thesis “Generator of Connectors for SOFA/DCUP”.

Current position

since 2010	Assistant Professor, Department of Distributed and Dependable Systems Faculty of Mathematics and Physics, Charles University
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Foreign experience

09/2016–12/2016	Researcher, Faculty of Informatics Università della Svizzera italiana, Lugano, Switzerland
07/2015–01/2016	Researcher, Faculty of Informatics Università della Svizzera italiana, Lugano, Switzerland
05/2013–01/2015	Researcher, Faculty of Informatics Università della Svizzera italiana, Lugano, Switzerland
06/2012–12/2012	Sciex Fellow, Faculty of Informatics Università della Svizzera italiana, Lugano, Switzerland

Previous positions

2008–2010	Assistant Professor, Department of Software Engineering Faculty of Mathematics and Physics, Charles University
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2005–2007	Researcher, Department of Software Engineering Faculty of Mathematics and Physics, Charles University
2011–2015	Researcher, Institute of Computer Science Academy of Sciences of the Czech Republic
2007–2011	Postdoctoral Researcher, Institute of Computer Science Academy of Sciences of the Czech Republic
2002–2007	Research Assistant, Institute of Computer Science Academy of Sciences of the Czech Republic

Project grants awarded

2010–2013	GAČR P202/10/J042, <i>Model-Driven Evaluation of Design Decision Impacts in Software Engineering (FERDINAND)</i> (principal co-investigator)
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Joint project with Karlsruhe Institute of Technology (Karlsruhe, Germany), Charles University (Prague, Czech Republic), and Institute of Computer Science, Academy of Sciences of the Czech Republic (Prague, Czech Republic). The Czech side was funded by the Agency of the Czech Republic (GAČR), the German side was funded by the German Research Foundation (DFG).

2012	Sciex-NMS ^{CH} 11.109, <i>DYNdynamic Analysis for diSTributed sYstems (DYNASTY)</i> (fellow)
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Junior researcher fellowship, fully funded by Swiss government under the Sciex-NMS^{CH} programme (Swiss contribution to new EU member states), with Università della Svizzera Italiana (Lugano, Switzerland) as the host institution, and Charles University (Prague, Czech Republic) as the home institution. The project was the only computer science project funded in the 5th call.

Project participation

Academic research projects

2018–	EU ECSEL 783162, <i>From the cloud to the edge - smart IntegraTion and OPTimisation Technologies for highly efficient Image and Video processing Systems (FitOptiVis)</i> (task leader)
2015–2016	EU IP FP7-605442, <i>Avionics Systems Hosted on a distributed modular electronics Large scale dEmonstrator for multiple tYpe of aircraft (ASHLEY)</i> (team member)
2013–2015	SNF 136225, <i>Foundations of dynamic program ANalysis (FAN)</i> (team member)
2011–2015	EU ITN FP7-264840, <i>Trans-European Research Training Network on Engineering and Provisioning of Service Based Cloud Applications (RELATE)</i> (team member)
2010–2012	EU FET FP7-257414, <i>Autonomic Service-Component ENSEMBles (ASCENS)</i> (team member)
2009–2012	GAČR 201/09/H057, <i>Res Informatica</i> (team member)
2008–2010	EU STREP FP7-215013, <i>Quality Impact Prediction for Evolving Service-Oriented Software (Q-ImPrESS)</i> (team member)
2006–2008	GAČR 201/06/0770, <i>Formální metody prakticky použitelné pro vývoj systémů složených ze softwarových komponent</i> (team member)
2005–2009	GAAVČR 1ET400300504, <i>Realistic Application of Formal Methods in Component Systems</i> (team member)
2005–2008	GAČR 201/05/H014, <i>Collegium Informaticum</i> (team member)
2005–2007	ITEA 04040, <i>Open Source Infrastructure for Runtime Integration of Services (OSIRIS)</i> (team member)
2003–2005	GAČR 102/03/0672, <i>Research of methods and tools for verification of embedded computer systems fault tolerance</i> (team member)
2003–2005	GAČR 201/03/0911, <i>Development of Advanced Software Components and Models</i> (team member)
2002–2004	ITEA 02003, <i>Open Source Middleware for Open Systems in Europe (OSMOSE)</i> (team member)
2002	GAAVČR A2030902, <i>Software Appliances (SOFA)</i> (team member)

Industrial projects (contractual research, technology transfer)

2017–	Oracle Labs (USA), <i>Continuous Compiler Performance Evaluation and Regression Detection</i> (team member)
2005–2006	France Telecom (FRA), contract no. 46127110, <i>Component Reliability Extensions to the Fractal Component Model</i> (team member)
2002	Borland International (USA), <i>CORBA Benchmarking Research Project</i> (team member)

Awards

OOPSLA 2015	Distinguished Paper Award for: <i>Accurate Profiling in Presence of Dynamic Compilation</i> (CORE A*)
CCGRID 2015	Best Paper Runner-Up Award for: <i>Analyzing the Impact of CPU Pinning and Partial CPU Loads on Performance and Energy Efficiency</i> (CORE A)
ICPE 2014	Best Research Paper Award for: <i>On the Limits of Modeling Generational Garbage Collector Performance</i>

Teaching activities

The following courses were (or are being) taught at the Faculty of Mathematics, Charles University. For more details please see the appendix with overview of teaching activities.

2008–2018	Best Programming Practices (NPRG043, lecture)
2015–2018	Computer Architecture (NSWI143, lecture)
2018	Individual Software Project (NPRG045, supervision)
2017–2018	Computer Skills (NSWI165, lab)
2013	Performance Evaluation of Computer Systems (NSWI131, lecture)
2007–2011	Principles of Computers and Operating Systems (NSWI120, lecture)
2003–2007	Operating Systems II (SWI088, lab)
2003–2007	Operating Systems I (SWI004, lab)

Assisted prof. Walter Binder as a lecturer in teaching bachelor and master courses at the Faculty of Informatics, Università della svizzera italiana, Lugano, Switzerland:

2012–2016	Programming Fundamentals 3 (INFO.B290, INFO.B250, INFO.B168, INFO.B115, INFO.B043)
2015–2016	Introduction to Programming (INFO.M327, INFO.M252)
2012–2015	Advanced Programming and Design (INFO.M288, INFO.M157, INFO.M115, INFO.M035)
2014	Parallel and Distributed Computing (INFO.M134)

Student supervision

More detailed information is available in the appendix with overview of teaching activities.

2010–2018	2 doctoral students, Faculty of Mathematics and Physics, Charles University Rima Al Ali (in progress), Andrej Podzimek (defended 2016)
2003–2015	6 master students, Faculty of Mathematics and Physics, Charles University
2005–2012	5 bachelor students, Faculty of Mathematics and Physics, Charles University

Academic service

- Program committee chair for QUDOS (ACM, 2018).
- Program committee member for ICPE (ACM, 2015–2016), SEAFOOD (Springer, 2010), SC (Springer, 2013), QUDOS (ACM, 2019).

- Program committee chair for tools and demonstration track at ICPE (ACM, 2017), member of program committee for tools and demonstrations at ICSA (2019).
- Member of ECOOP (CORE A, 2015) artifact evaluation committee.
- Member of ICPE (2013) organization committee.
- External reviewer or sub-reviewer for ATPS (GI, 2016), CCGRID (CORE A, IEEE, 2017), CORCS (IEEE, 2008), ECOOP (CORE A, Springer, 2008, 2014–2015), EUROPAR (CORE A, Springer, 2014), EWSA (Springer, 2006), GPCE (CORE B, ACM, 2015), ICPE (ACM, 2011), ICSOC (CORE A, Springer, 2013–2015), JTRES (ACM, 2014), MOLS 2018, QOSA (CORE A, Springer, 2009, 2011), SERA (CORE C, IASTED, 2006–2008), SOFSEM (CORE B, Springer, 2005, 2007).
- Reviewer for *Computer Science Reviews* (Elsevier), *Journal of Computers and Applications* (IASTED), *Journal of Network and Computer Applications* (Elsevier), *Transactions on Software Engineering and Methodology* (TOSEM) (Elsevier), *Software and Systems Modeling* (Springer).