Filip Křikava

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Employment

10/2022 - 03/2023 **Contractor at Lacework**
Prague, Czech Republic (remote position)

Implemented a streaming platform in Rust for processing real time threat data.

09/2016 - **Associate professor at Czech Technical University**
Prague, Czech Republic

Focusing on static and dynamic analysis of R and Scala. The ultimate goal is to add gradual typing into R. Teaching object-oriented programming (in Scala, bachelor level) and principles of program analysis (master level). Became associate professor on 01/2022.

09/2016 - 03/2017 **Visiting researcher at Northeastern University**
Boston, MA, United States

Worked primarily on dynamic analysis of R. Created a dynamic tracing framework for R and automated test extraction tool for R. Co-designed and taught a master course on data analysis in R.

09/2015 - 08/2016 **Principal member of the technical staff at ORACLE**
Prague, Czech Republic

Worked on the backend side of Internet-of-Things / Big Data analytics services for the Oracle Cloud, integrating various data sources into an uniform programming model on the top of Apache Spark.

07/2015 - 08/2016 **Assistant Professor at Czech Technical University**
Prague, Czech Republic

A part-time teaching position: conceptual modeling (bachelor level), object-oriented programming in smalltalk (bachelor level, in collaboration with Stéphane Ducasse), design patterns (master level). My research continued in a collaboration with the Spirals team from INRIA Lille.

11/2013 - 05/2015 **Postdoctoral fellow at INRIA / Université de Lille 1 - Spirals team**
Lille, France

Worked on the integration of self-adaptive behavior into distributed software systems through model-driven engineering techniques. The main focus is on adaptation of cloud infrastructures (OpenSstack) and big data analysis platforms (Hadoop).

11/2009 - 08/2013 **PhD candidate at CNRS - I3S - MODALIS team**
Nice, France

My main research was in the application of model-driven engineering, domain-specific modeling and models@run.time to systematically integrate self-adaptive mechanisms into distributed software systems. The main focus was on high-throughput computing and grid middleware (HTCondor).

02/2007 - 07/2009 **Software Engineer / Team Lead at TomTom International, BV**
Amsterdam, The Netherlands

Designed and developed a distributed Java based client/server GIS system for analyzing and visualizing GEO-referenced traffic data using Eclipse RCP and JEE stack. From January 2009, I became responsible for the entire project leading a team of 5 developers.

07/2005 - 01/2007 **Software Engineer at Sun Microsystems, Inc.**
Santa Clara, USA; Prague, Czech Republic

Designed and developed security related tools and applications for information management based on Java. The main contribution was a distributed network scanner based on nmap that was autonomously auditing the SUN wide area network. From November 2006, I started as an integration developer working on a high-availability platform for the telecommunication industry.

03/2005 - 06/2005 **Software Engineer at Accenture Central Europe, BV**
Prague, Czech Republic

Designed and developed a Java-based tool that translated an online banking interface of Česká Spořitelna into a standalone application. The standalone version was used as a downloadable demo as well as for training the baking staff.

09/2004 - 12/2004 **Software Engineer at CAPE Technologies, Ltd.**
Dublin, Ireland

Worked on Java-based plug-ins for parsing output from various network adapters and storing the results into an Oracle database.

01/2004 - 07/2004 **Software Engineer at Accenture Central Europe, BV**
Prague, Czech Republic

Worked on a graphical user interface for online banking services for Česká Spořitelna (membre de Erste Group Bank AG) in Java/JSP.

Education

2013 **PhD in Computer Science**, defended on 22.11.2013

University: CNRS - I3S / Université Nice - Sophia Antipolis, France
Note: highest honor
Subject: *Domain-Specific Modeling Language for Self-Adaptive Software System Architectures*
Advisers: Philippe Collet, Johan Montagnat

2009 **Master of Science**, defended on 27.01.2009

University: Czech Technical University in Prague, Czech Republic
Note: award for the best master thesis
Subject: Complex Analysis of Traffic Information
Adviser: Petr Moos

Qualifications and Certifications

- 3rd International Winter School in Grid Computing, March - April 2010
- Certified Eclipse RCP Developer, Eclipse Training Alliance, March 2009
- Eclipse RCP training, Eclipse Training Alliance, October 2007
- Core Spring 2, Interface 21, May 2007
- Solaris 10 Operating System Internals (SI365S10), Sun EDU, November 2006
- Sun Certified Programmer for the Java 2 Platform, SE 5.0 (CX310055), May 2006
- OO Application Analysis and Design for Java with UML (OO226), Sun EDU, April 2006

Languages

- Czech - native proficiency
- English - full professional proficiency
- French - professional working proficiency
- Spanish - limited working proficiency

Personal interests and skills

- Climbing, running, skiing, diving (PADI AOWD), yachting (certificate of competence yachtmaster), photography, travel, literature