Filip Křikava

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Employment

10/2022 - 03/2023 Contract

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).

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