

# Dr.-Ing. Rodrigo Falcão, PMP

COMPUTER SCIENTIST · SOFTWARE ENGINEER · RESEARCHER

🏠 rodrigofalcao.info    📄 rmfalcao

## Professional Profile

I am a computer scientist and software engineer who had been working in industry for 15 years as a project manager, project leader, systems analyst, and programmer, with experience in many domains but particularly in mobile telecommunications (Operation Support Systems and Business Support Systems). In 2012, I started to do research on context awareness, and in 2015, I began my PhD on the topic, completing it in 2022 at the University of Kaiserslautern (Germany). Since 2017, I have been working at the Fraunhofer Institute for Experimental Software Engineering IESE (Germany), where I serve as a researcher, senior software architect, and project manager. My list of research interests includes experimental software engineering, data-driven context modeling, context models, interoperability, generative AI, and privacy-enhancing technologies. And I am passionate about the idea of working on bridging the gap between industry and academia.

I have contributed as a reviewer/PC member in journals, conferences, and workshops, including JSS, SQJ, CIBSE, REFSQ, and CREARE.

## Education

### PhD (Dr.-Ing.) in Computer Science

UNIVERSITY OF KAISERSLAUTERN  
• Magna cum laude

Kaiserslautern, DE  
completed in 2022

### M.Sc. in Computer Science

FEDERAL UNIVERSITY OF BAHIA

Salvador, BR  
completed in 2014

### B.Sc. in Computer Science

FEDERAL UNIVERSITY OF BAHIA

Salvador, BR  
completed in 2004

## Certifications

2011    **Project Management Professional PMP®**, issued by the Project Management Institute (PMI)

## Language Skills

**ENGLISH**    comprehends well, speaks well, reads well, writes well

**GERMAN**    comprehends reasonably, speaks reasonably, reads reasonably, writes reasonably

**SPANISH**    comprehends reasonably, speaks reasonably, reads reasonably, writes reasonably

**PORTUGUESE**    native speaker

## Experience

### Mannheim University of Applied Sciences

LECTURER OF SOFTWARE ARCHITECTURE  
• Part-time work

Mannheim, DE  
since September 2023

### Fraunhofer Institute for Experimental Software Engineering IESE

PROJECT MANAGER, SENIOR SOFTWARE ARCHITECT & RESEARCHER

- Expert on data-driven context modeling for elicitation of context-aware functionalities
- Experience as trainer and adviser for software architecture (foundations and practice)
- Researcher on interoperability and generative AI for architecture

Kaiserslautern, DE  
since July 2015

## Technische Universität Kaiserslautern

RESEARCH ASSISTANT AT THE BUSINESS INFORMATION SYSTEMS & OPERATIONS RESEARCH GROUP

Kaiserslautern, DE

Sep. 2016 – Apr. 2017

## Indra do Brasil S/A

PROJECT LEADER & SENIOR SOFTWARE ENGINEER

Salvador, BR

Aug. 2013 - Jul. 2015

## Meta

JAVA TEAM COORDINATOR & SENIOR SYSTEM ANALYST

Salvador, BR

Aug. 2004 - Aug. 2013

## Falc Tecnologia

OWNER

Salvador, BR

Mar. 2002 - Apr. 2016

## Hype Tecnologias

INTERN

Salvador, BR

Jan. 2002

## Federal University of Bahia

UNDERGRADUATE RESEARCH SCHOLARSHIP AT TECLIM – CLEAN TECHNOLOGY NETWORK RESEARCH GROUP

MEMBER OF INFOJR – COMPUTING JUNIOR ENTERPRISE

Salvador, BR

Nov. 2000 – Feb. 2002

## Publications & Presentations

---

Here are some of my publications. For a comprehensive list, please refer to my profile on Google Scholar.

### Adler, R., Elberzhager, F., Falcão, R., Siebert, J. “Defining and Researching ‘Dynamic Systems of Systems’”

SOFTWARE, 3

(Journal)

2024

### Falcão, R., Hosseinzadeh, A. “Towards a decentralized data privacy protocol for self-sovereignty in the digital world”

1ST INTERNATIONAL USABLE SECURITY AND PRIVACY FOR EMERGING TECHNOLOGIES WORKSHOP

Guimarães, Portugal

May 2024

### Falcão, R., Matar, R., Rauch, B., Elberzhager, F., Koch, M. “A Reference Architecture for Enabling Interoperability and Data Sovereignty in the Agricultural Data Space”

INFORMATION, 14

(Journal)

2023

### Falcão, R., King, R., Carvalho, A. L. “xPACE and TASC Modeler: Tool Support for Data-Driven Context Modeling”

28TH INTERNATIONAL WORKING CONFERENCE ON REQUIREMENT ENGINEERING: FOUNDATION FOR SOFTWARE

QUALITY

• Best Tool Paper Award

Birmingham, England

May 2022

### Falcão, R., Matar, R., Rauch, B. “Using I4. 0 digital twins in agriculture”

EUROPEAN CONFERENCE ON SOFTWARE ARCHITECTURE (ECSA 2022)

Prague, Czech Republic

September 2022

### Falcão, R., Villela, K., Vieira, V., Trapp, M., Vianna Dias da Silva, A. “Using a Data-Driven Context Model to Support the Elicitation of Context-Aware Functionalities – A Controlled Experiment”

INTERNATIONAL CONFERENCE ON PRODUCT-FOCUSED SOFTWARE PROCESS IMPROVEMENT (PROFES 2021)

Turin, Italy

November 2021

**Falcão, R., Villela, K., Vieira, V., Trapp, M., Lopes de Faria, I. “The practical role of context modeling in the elicitation of context-aware functionalities: a survey”**

PROCEEDINGS OF THE 29TH IEEE INTERNATIONAL REQUIREMENTS ENGINEERING CONFERENCE (RE 2021)

Notre Dame, USA

September 2021

**Falcão, R., Elberzhager, F., Theobald, S., von Albedyll, J. “Increasing the say-do ratio of an agile team in a resource-shared environment via traditional project management measures”**

PROCEEDINGS OF THE XXIV IBERO-AMERICAN CONFERENCE ON SOFTWARE ENGINEERING (CIBSE 2021)

San Jose, Costa Rica

September 2021

**Villela, K., Hess, A., Koch, M., Falcão, R., Groen, E., Doerr, J., Valero, C., Ebert, A. “Towards Ubiquitous RE: A Perspective on Requirements Engineering in the Era of Digital Transformation”**

PROCEEDINGS OF THE 26TH IEEE INTERNATIONAL REQUIREMENTS ENGINEERING CONFERENCE (RE 2018)

Banff, CA

August 2018

**Falcão, R. “Improving the Elicitation of Delightful Context-Aware Features: a Data-Based Approach”**

PROCEEDINGS OF THE 25TH IEEE INTERNATIONAL REQUIREMENTS ENGINEERING CONFERENCE (RE 2017)

Lisbon, PT

September 2017

**Falcão, R. “Elicitation of Delightful Context-Aware Features: Challenges and Outlook [Extended Abstract]”**

PROCEEDINGS OF THE 39TH INTERNATIONAL CONFERENCE ON SOFTWARE ENGINEERING COMPANION (ICSE 2017)

Buenos Aires, AR

May 2017

## Additional Training

2024	<b>RCIS'24</b> , 18th Research Challenges in Information Science	Guimarães, PT
2024	<b>ICSE'24</b> , 46th International Conference on Software Engineering	Lisbon, PT
2022	<b>ECSA'22</b> , 16th European Conference on Software Architecture	Prague, CZ
2022	<b>ER'22</b> , 41st International Conference on Conceptual Modeling	Hyderabad, IN
2022	<b>REFSQ'22</b> , 28th International Working Conference on Requirement Engineering	Birmingham, UK
2022	<b>Slidewriting – create outstanding slides quickly</b> , Workshop at TU Kaiserslautern	Kaiserslautern, DE
2021	<b>Effective Visual Communication for Scientists</b> , Seminar at TU Kaiserslautern	Kaiserslautern, DE
2021	<b>PROFES'21</b> , 22nd International Conference on Product-Focused Software Process Improvement	Turin, IT
2021	<b>RE'21</b> , 29th IEEE International Requirements Engineering Conference	Notre Dame, US
2020	<b>Time-, life and career management for scientists</b> , Seminar at TU Kaiserslautern	Kaiserslautern, DE
2020	<b>MODELS20</b> , 24th International Conference on Model Driven Engineering Languages and Systems	Montreal, CA
2019	<b>Peer-review publishing</b> , Seminar at TU Kaiserslautern	Kaiserslautern, DE
2019	<b>TAG'19</b> , The Architecture Gathering	Munich, DE
2018	<b>TAG'18</b> , The Architecture Gathering	Munich, DE
2017	<b>TAG'17</b> , The Architecture Gathering	Munich, DE
2017	<b>RE'17</b> , 25th IEEE International Requirements Engineering Conference	Lisbon, PT
2017	<b>ICSE'17</b> , 39th International Conference on Software Engineering	Buenos Aires, AR
2014	<b>SBSI'14</b> , 10th Brazilian Symposium on Information Systems	Londrina, BR
2013	<b>WEBMEDIA'13</b> , 19th Brazilian Symposium on Multimedia and the Web	Salvador, BR
2013	<b>CNGP'13</b> , National Congress in Project Management (PMI Brazil – Bahia Chapter)	Salvador, BR
2011	<b>CNGP'11</b> , National Congress in Project Management (PMI Brazil – Bahia Chapter)	Salvador, BR
2009	<b>Agile in Practice</b> , agile methods course (Index TI)	Salvador, BR
2006	<b>Function Point Analysis course</b> , provided by Jorge Amado University Center	Salvador, BR
2001	<b>IX ENEJ</b> , National Meeting of Junior Enterprises	Curitiba, BR
2000	<b>II EEJ-BA</b> , Meeting of Junior Enterprises in the State of Bahia	V. Conquista, BR
2000	<b>SEMINFO 2000</b> , Computing Week of Federal University of Bahia	Salvador, BR

## Technology and Tools

---

<b>Main</b>	Java, web (HTML, Javascript, CSS), SOAP and RESTful web services, UML, SQL, PostgreSQL, MySQL, Oracle DB, R.
<b>Others</b>	Mobile (Android / iOS), C/C++, ASP, VB6, PHP, Pascal.