

**Dr. Johannes Hund**

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\* 10.11.1981



**Research Scientist / Software Architect for IoT and Web technologies**

Johannes has been working for Siemens Corporate Technology since December 2011. His expertise is placed on web technology for embedded networks with a focal point on connectivity, application platforms, device management and cloud-based back-ends for IoT solutions.

He has a Ph.D. in Engineering, a Master’s degree in Computer Science and a German Diploma in Informatics. His current position involves driving the full lifecycle of technology projects from creating of concepts over partnering and customer acquisition, PoC realization and prototype implementation down to technology handover to product business and product ownership in agile development. Thus, he acquired a broad set of soft skills, ranging from acquisition and management communication to project management and hands-on implementation.

The major focus of his technological skill set involves Javascript, C/C++, Java, Golang and Python, he has in-depth experience with embedded Linux systems and scale-down of web technology and application frameworks for embedded devices. On the cloud side his experience involves Cloud technologies, microservices based on Spring Boot, Akka and data aggregation & visualization such as ELK and Grafana. He is a lead contributor to the standardization effort “Web of Things” within W3C and is an active contributor to several open source projects.

**Relevant Experience**

Highlights of Dr. Hund’s accomplishments as are follows:

- Core Architect of the IoT strategy / core technology initiative of Siemens: “Web of Systems”
- Subproject lead and architect for connectivity and automation for the Spin-off “Caterva”
- Thought leader and task force chair in the W3C Interest Group on the Web of Things
- Concepts, technology and prototype implementations for several Siemens products

The industries in which Mr. Hund has specific experience include energy systems, transportation, manufacturing, hi-tech, cloud platforms and web.

**Professional Background**

Prior to joining Siemens CT, Johannes did an internship with Infineon (marketing, technology analysis and product definition for embedded DRAMs) and worked as a freelancer , providing web applications for smaller businesses and consulting start-up companies regarding competitor analysis and technology roadmap. He helped bringing the startup Loc@IPlus to IPO (location based services for cellphones in 90ies - 2000) and supported Destinator Germany (navigation system software for PDAs in the early 200x). Johannes graduated from Fachhochschule Heidelberg in the field of Computer Science, with a major in Artificial Intelligence. He got his Ph.D. from BTU Cottbus in the field of wireless real-time control for factory automation. He received several stipendiary from Siemens and was working as a freelancer as well as teaching at the university.

German (mother tongue), English (business fluent), French (conversational).

## WORK EXPERIENCE

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- 12/11 – Present      **Siemens Corporate Technology**, Munich, Germany;  
Research Scientist  
Device management and application layers for IoT  
Web Technology standardization, design-in for IoT solutions
- 2006-2007          **SRH University of Applied Sciences**, Heidelberg, Germany;  
Guest lecturer  
Lecture: advanced programming 3: C++
- 2001-2003          **Destinator Deutschland GmbH**, Munich, Germany;  
Analysis / Product Manager  
Competitor Analysis, Feature Roadmap, Product Definition

## EDUCATION

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- 2008-2012          **BTU Cottbus**, Cottbus, Germany  
Ph. D. in Computer Science / Engineering in corporation with Siemens  
Final result **1.0**, predicate “magna cum laude”
- 2006-2007          **SRH University of Applied Sciences**, Heidelberg, Germany;  
Master of Science, ranked best in class, final result **1.2**
- 2004-2006          **SRH University of Applied Sciences**, Heidelberg, Germany;  
Computer Science, ranked best in class, final result **1.5**

## INTERNSHIPS

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- 2005                  **Siemens**, Munich, Germany;  
Intern  
IT Operations, Acceptance testing, Bugtracking, Integration testing
- 1998 – 2001        **Infineon Technologies**, Munich, Germany;  
Intern / Student Employee  
Web design/programming, VBA Macros, SW Tools

## PERSONAL INTERESTS

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Wheelchair Rugby, Open source programming, Smart home & AAL

**Project History**

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|-----------------|--|
| <b>Client</b>   | Siemens Core Technology Initiative "Web of Systems"  |
| <b>Industry</b> | Factory automation, energy automation, smart mobility, analytics   |
| <b>Position</b> | Core architect   |
| <b>Period</b>   | 2015 - Present   |
| <b>Skills</b>   | Software Architecture, Industrial IoT, Device management, Cloud computing  |
| <b>Details</b>  | "Web of Systems" is one of the core initiatives of the digitalization strategy of Siemens. I am one of the core architects and main drivers of this project, my tasks include project acquisition, management communication, system architecture, specification and prototypical implementation, technological steering and product ownership in agile software development.                           |
| <b>Client</b>   | W3C Interest Group "Web of Things"   |
| <b>Industry</b> | Web  |
| <b>Position</b> | Task force chair   |
| <b>Period</b>   | 2015 - Present   |
| <b>Skills</b>   | Software Architecture, standardization, Web Technologies   |
| <b>Details</b>  | The interest group on "Web of Things" aims to provide standardized building blocks for the IoT to bridge the interoperability gap. I lead a task force on scripting APIs and protocol bindings which aims to find relevant technology candidates, identify use cases and provide early specification drafts and proof-of-concept implementations for the standardization work.                         |
| <b>Client</b>   | Siemens AG / Caterva GmbH  |
| <b>Industry</b> | Energy / IoT   |
| <b>Position</b> | Sub Project Leader   |
| <b>Period</b>   | 2013-2014  |
| <b>Skills</b>   | Project Management, Software Architecture, Implementation  |
| <b>Details</b>  | Technological consulting for a spin-off company (start-up). My tasks were the system conception, architecture, implementation and technology handover for a partially autonomous massively-distributed system of smart energy devices forming a virtual power plant and participating on the ancillary services market as well as the cloud backend for device management and distributed optimization |
| <b>Client</b>   | EU-Funded research project "OpenNode"  |
| <b>Industry</b> | Energy   |
| <b>Position</b> | Team Member  |
| <b>Period</b>   | 2011-2013  |
| <b>Skills</b>   | Software Architecture, System conception, Development lead   |
| <b>Details</b>  | Within a public-funded research project with members including Iberdrola, EDF and ATOS, my task was system conception and development lead for a smart secondary substation node capable of in-field software deployment for analytics and extended functionality  |