CV
Dr.-Ing. John Erik Wittern

Industrial experience

IBM T.J. Watson Research Center, Yorktown Heights, NY, USA   Oct. 1st 2014 – today

Research Staff Member and Technical Lead (full-time)

IBM Research is the world's largest and most established industrial research organization, and the innovation engine of IBM. Research Staff Members drive this innovation through technical and scientific work.

Key researcher on Web APIs and GraphQL within the Cloud Computing department: leading teams of researchers and software engineers, setting technical directions, and communicating goals, results, and broader technology trends to upper management – in addition to hands-on research and engineering work. Specific projects & accomplishments include:

- R&D of GraphQL API management facilities, on path to be adopted in IBM API Connect. Resulting in my selection as technical representative of IBM in the GraphQL Foundation.
- R&D of OpenAPI-to-GraphQL, an open-sourced library for migrating APIs to GraphQL. Includes overseeing related open-source process (testing automation, release management, customer support).
- Conceptualization, implementation, and continuous operation of API Harmony, an API catalog in the IBM Cloud, which relies on mining Web APIs and their use in open-source projects.

Apart from product adoption, my work has resulted in over 20 patents for IBM, and multiple publications in top international conferences and journals.

FZI Research Center for Information Technology, Berlin   Aug. 1st 2012 – July 31st 2014

Research Scientist (full-time)

Research and teaching in Cloud Computing and Software Engineering, including representation of the research group in EU multi-partner/industry-research consortium, contributions to research proposals, and supervision of master and bachelor theses.

I conceptualized a new modeling approach to assess software service variants, and developed tools for it. The approach was applied in the collaborative design of public services.

IBM T.J. Watson Research Center, Yorktown Heights, NY, USA   June 3rd – Aug. 31st 2013

Research intern (full-time)

Research on "Scalable Service Ecosystems", resulting in scientific paper and 4 patents, and laying the intellectual and technical groundwork for the later creation of API Harmony.

Deutsche Bank AG, Frankfurt am Main   April 6th – July 3rd 2009

Intern in Inhouse Consulting (full-time)

Working on group-strategic projects "Marketing & Communication and Realignment of Business Management" and "Global Banking Know Your Customer".

IBM Deutschland GmbH, Düsseldorf   March 17th – July 16th 2008

Intern in Global Business Services (full-time)

Development of technical tests for RFID system; conceptualization of an dynamic Content Management System.

Education

Karlsruhe Institute of Technology (KIT), Karlsruhe

PhD (Dr.-Ing.; completed with magna cum laude)   1. Aug. 2010 – 15. Mai 2014

Topic: "Modeling and Selection of Software Service Variants" at the Institute of Applied Informatics and Formal Description Methods (AIFB) under Prof. Dr. Stefan Tai.

Diplom (MSc equivalent) "Wirtschaftsingenieurwesen" (Engineering & Management)   Oct. 2004 – Juli 2010

Diplom with grade 1.5 ("very good"), focus on computer science.

Working as a research assistant from December 1st 2009 to March 31st 2010.

Technical eminence

- Technical representative of IBM and founding member of the GraphQL Foundation since March 2019
- Main contributor to OASGraph open-source project (> 250 GitHub stars)
- Member of program committees (selects technical program) of numerous international top conferences (MSR, ICWE, ICWS ICSME etc.) und of the steering committee of the ESOCC conference since 2016
- Co-organizer of the 2nd Vienna Software Seminar "DevOps and Microservice APIs", August 2019
- Co-organizer of multiple workshops (MoTA 2016; M4IoT 2017 & 2018) at the Middleware conference
- Book co-author „Cloud Service Benchmarking", published by Springer
- Author of over 25 scientific, peer-reviewed articles in leading international conferences and journals (over 340 citations) and 20 patents
- Review of technical contributions to leading journals & national grant proposals (Canada, Israel etc.)

Speaking

- Over 20 presentations at international technical conferences
- Talks at developer conferences (API Strategy 2018, IBM InterConnect 2018)

Awards/Honors

- 5 IBM Innovation Plateaus – Recognition for submitting in sum 20 patents for IBM
- IBM „A Level Accomplishment" for "Research Contributions to the API Economy and SaaS Transformation"
- Distinguished Reviewer Award at the MSR Conference in 2019
- ACM SIGSOFT Distinguished Paper Award at the MSR conference 2018

Personal development projects

- MagicOS.co – Application for managing Old School Magic collections (React.js, Google Cloud)
- numbie – Anonymous, ephemeral, real-time location sharing (Meteor, Heroku)
- GravityQuest – Retro game, in the iOS app store from 2014 to 2017 (Phaser.js)
- TechCrunch Disrupt – 3-times participant and developer in the TechCrunch Disrupt NYC Hackathon (awarded tickets to the main conference after evaluation of the outcome each time)

Social engagement

- Volunteer judge at the Westchester Science & Engineering Fair (WESEF) in New York, 2015 to 2019
- President of the UNICEF student organization at KIT from July 1st 2008 to August 31st 2010

IT skills

Programming: TypeScript/JavaScript/Node, Python, Java, C++, Ruby, HTML, CSS
Frameworks: React.js, Vue.js, Express, Google Firebase, Bootstrap etc.
Cloud technologies: GraphQL, OpenAPIs, REST, Git, Docker, Kubernetes, Istio etc.

Languages

German (native speaker), English (business fluent), French (basic knowledge)

Hobbies

Tennis, Old School Magic, programming, reading, cooking