

Curriculum Vita / Lebenslauf

Professional experience

After leaving a successful career as a research physicist I joined IT, where for many years my specialty was building and leading international teams, and more recently, leading large digital transformation programs.

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| 09.2021 – present | Professor of Computer Science
Bern University of Applied Sciences, Bern |
| | Applied research and teaching, including responsibility for the “Digital Business Systems” <i>Vertiefung</i> and co-coordinator of the BFH Digital Skills Coaching program. |
| 10.2019 – 09.2021 | Senior IT Program Manager for HR & Finance
Migros-Genossenschaftsbund, Zürich |
| | Led complex digital transformation projects to centralize the procurement and employee learning management functions across Switzerland. <ul style="list-style-type: none">• <u>Budget</u>: approx. CHF 5 Mio across all projects• <u>Management</u>: 150 employees as RTE, 20 employees as PM |
| 10.2018 – 10.2019 | Global IT Transformation Director
Swiss Post Solutions AG, Zürich |
| | Digital Transformation of the Global IT Operations organization in 7 countries to reduce costs and harmonize business processes. <ul style="list-style-type: none">• <u>Budget</u>: none, CIO staff position• <u>Management</u>: none, CIO staff position |
| 10.2014 – 08.2018 | Head of Global IT Transformation
Swissport Group Services LLC, Zürich |
| | Lead a “Digital Null” to “Digital Full” transformation. Centralize IT across 6 geographies and outsource all IT operations and support to Tata/TCS India. <ul style="list-style-type: none">• <u>Budget</u>: CHF 11 Mio for the IT transformation project• <u>Project team size</u>: 40 onshore, 150 offshore |
| 02.2012 – 09.2014 | Head of IT Global Operations
Sulzer Management AG, Winterthur |
| | Responsible for global IT operations. Contribute to major digital transformation to consolidate IT and build a private cloud in 2 datacenters. <ul style="list-style-type: none">• <u>Budget</u>: CHF 20 Mio OPEX, CHF 5 Mio CAPEX• <u>Management</u>: 100 employees in 4 geographies |
| 01.2009 – 02.2012 | Bereichsleiter, Software Application Development
SBB / CFF / FFS, Bern |

Responsible for payment systems, GA/HTA, Western Union, B2B, core systems of webshop (<https://sbb.ch>), and the train conductor handheld devices.

- Budget: CHF 5 Mio OPEX, CHF 2 Mio CAPEX
- Management: 45 employees in 3 teams

08.2008 – 12.2008

**Head IT Support & Service Delivery, Nearshore
Hewlett-Packard, Sofia, Bulgaria**

Build the first IT nearshore service organization for HP Germany.

- Budget: approx. CHF 1 Mio
- Management: 80 IT support engineers

06.2005 – 08.2008

**Head Application Development
Hewlett-Packard, Bangalore, India**

Build the first IT offshore software development organization for HP Germany.

- Budget: approx. CHF 1 Mio
- Management: 70 IT support engineers

06.2005 – 12.2000

**IT Project Manager, IT Consultant
Hewlett-Packard, Böblingen, Germany**

Software engineering projects for manufacturing & pharma domains.

- Budget: approx. CHF 5 Mio
- Management: 80 IT support engineers

09.1998 – 12.2000

**Postdoctoral Researcher
Max-Planck-Institute for Metals Research, Stuttgart, Germany**

Build and commission a new laboratory for synthesizing crystalline organic thin films.

- Budget: approx. CHF 2 Mio

09.1990 – 09.2000

**Research Assistant
Dept. Physics, Univ. of Illinois at Urbana-Champaign, USA**

Research into the magnetic properties of rare earth thin films. Won an international award for thesis; first winner of a full-scholarship at UIUC Physics.

06.1989 – 09.1989

**Research Technician
Brookhaven National Laboratory, Upton NY, USA**

Research into the behavior of low-energy positrons in condensed matter systems.

06.1987 – 10.1987

**Summer Intern
Oak Ridge National Laboratory, Oak Ridge TN, USA**

Cray supercomputer calculations of the electrostatic binding energy in high-temperature superconductors.

Education

1998 - 2000	Postdoctoral Fellow Max-Planck-Institut für Metallforschung, Stuttgart, Germany
1998	Ph.D. Physics University of Illinois at Urbana-Champaign
1990	Master of Science, Physics University of Massachusetts, Amherst USA
1984 – 1988	Major, Physics; Minor, Mathematics Sonoma State University, Rohnert Park, California

Non-BFH academic activities

This work brings me into regular contact with industry and academic specialists, and it keeps my know-how in an important technical domain current.

- Dozent for the module “Enterprise Information Management” in the [CAS Digital Transformation](#) at the FH Ost in St. Gallen (1x yearly since 2021).

Volunteer and Pro Bono work

I feel strongly that senior professionals in all areas have an obligation towards unpaid, volunteer activities to encourage the next generation of professionals.

- **Job Coach for [RemoteCoders](#) (2024-present).** RemoteCoders is a Swiss/Egyptian organisation that educates and empowers refugees in Egypt from other companies to carry out IT projects remotely for Swiss customers.
- **Intern mentor for [PowerCoders](#) (2023-present).** PowerCoders is a Swiss organisation that trains refugees in Switzerland for careers in the Swiss IT job market.
- **IT and Mentor for the [Sharada Educational Trust](#) (2022-present).** The Sharada Educational Trust is an NGO based in Bangalore, India that aims to improve the lives of rural Indian students and female college students. In my IT role I develop and maintain software applications for the trust. In my Mentor role I have mentored female students at technical colleges and given talks to primary school teachers at government-run schools.
- **Student mentor for students at [Gibb Berufsfachschule](#) (2024).** Served as mentor and coach for a group of 4 students developing their first web-application.

- **MVP for Miro (2024 – present).** Miro is a collaboration tool with over 70 Mio users worldwide. I serve as one of 60 “Most Valuable Professionals” worldwide, where I interface between the public and the internal Miro product managers.
- **Roundtable moderator for [Strategy Insights](#) (2020 - 2023).** Lead roundtable workshops for IT experts in the DACH region. Topics: digital transformation, leading global teams, IND5.0, IT asset management, GenZ in the workplace.
- **Earlier work** before joining BFH included mentoring college students in India, setting up a German/India peer group for women in the IT industry, speaking engagements at rural colleges in India, and many others. Much of this is documented on my homepage, <https://ritley.com>.

Awards

These are awards I received during my academic years and prior to becoming a physicist. The award of which I am most proud is the List of Outstanding Teachers at the University of Illinois, a program known today that recognizes both teaching assistants and full time faculty alike.

1998	Graduate Student award, Magnetic Multilayers MML/EMRS 1998, Vancouver, BC
1997	Fredrick T. and Edith F. Mavis Fellow, University of Illinois
1991	List of Outstanding Teachers, University of Illinois
1988	Edgar and Beulah Dryden Mathematics Scholarship
1988	Sonoma State University Presidential Scholar
1988	Second-place, Natural Sciences, California State University Research Competition
1988	Institutional Membership, Mathematical Association of America
1987	Edgar and Beulah Dryden Mathematics Scholarship
1987	Top recognition, Putnam Mathematics Examination, Sonoma State University

BFH Bachelor theses supervised

The BFH TI Computer Science department does an amazing job of training students to an exceptionally high professional level. I am very proud I can use my 20+ years of professional experience as “coach” to help students achieve their best results. Whenever possible I seek collaborations with Swiss companies. My regret is that my time does not allow me to supervise more talented students each semester.

FS 2025 (in progress)

- **LogBuech – A GenAI solution for personalized digital assessment tests** by Sabine Kalbermutter, Wiktor Kepczynsky, T. Mühlemann: A social media platform for sharing links to movies and books.
- **A GenAI solution for speech-to-text translation of Indian languages** by David Pfister and Marcel Zbinden: As a follow-up to the successful LMS-for-Rural-India application, the project targets an important area that even the larger companies (e.g. Google) have neglected. This will be a key feature in the learning app that will hopefully impact the lives of thousands of rural Indian students and teachers.
- **Swiss Food Quiz** by Xavier Frèlechoz and Quentin Vaney: The students are collaborating with BFH Health to develop an app to be used by the entire population of Switzerland to survey their eating habits and nutrition.
- **Receiptbox – A universal receipt manager** by Nathan Luè and Daniel Matt, co-supervised with Moritz Meier from the BFH TI Industrial Engineering: Our lives today are increasingly digital, yet a very important area still has no standards or interoperability, namely, the receipts when we buy things. The project builds a digital infrastructure that can be used by all POS devices, providing all shoppers with standardized receipts they can store. The goal is to enable a quantum leap in how people manage their budgets and expenses.

HS 2024-2025

- **Digibot – A GenAI solution for personalized digital assessment tests** by Christian Schmidhalter & Roman Schneiter: A system that creates personalized examination questions based on individual user profiles. The project went beyond implementation to include scientific research with over 50 users to evaluate the effectiveness of custom-tailored questions.

FS 2024

- **Learning Management System for Rural India** by Tobias Erpen, Alayne Hiltmann, and Lukas Vogel: A "made-for-rural-India" application to help teachers and students in rural India take online classes. The project culminated in field tests in Indian villages and is now benefitting over 2000 students at 69 government schools in India.
- **HomeSpeak** by Danaël von Bergen: A complex end-to-end system for voice-controlled home automation using Raspberry Pi, ESP32, WLAN, MQTT, cloud computing, and speech recognition. The project tested the boundaries of what would and wouldn't work

in IoT home automation, representing the most complex technological environment among all supervised theses.

- **Collaborative Trip Planner** by Lukas Moser: A project using PHP/Laravel stack with various modern web technologies. The thesis formed the basis of a start-up company.
- **Miro als Classroom-Tool** by Petru Lazar: A web application using the Miro REST API to give teachers the ability to handle Miro boards privately with their students. The project addressed confidentiality requirements for teaching, enabling private sharing of exams and homework between teachers and students.

FS2023

- **A tour history algorithm for a fleet of e-vehicles** by Marius Lauener: A complex application integrating real-time telemetry data to provide important details about package delivery and optimization for Quickpac AG. The project was related to Marius's job as a software developer with Switzerland's largest e-vehicle delivery company.
- **enstutz.ch – Entwicklung einer Online-Spendenplattform** by Carolina Osei Alvarez: A sophisticated mobile app enabling secure small donations to the homeless, ensuring the money would be used for food. The project was based on Carolina's passion for helping people and included surveying over 10,000 people to validate the concept.
- **Food Truck Finder** by Mei Yung Wong and Chun Fatt Wong: An application to help food truck enthusiasts search for food trucks, discover new ones in their area, and write reviews. The project reflected the students' passion for the growing food truck scene in Switzerland.
- **Infrastructure as Code** by Gaylord Rohlf: A comparative study for Nanotronic AG about use cases for Infrastructure as Code and related products. The project benefited from Gaylord's extensive IT experience across programming, server/storage/network management, datacenter operations, and mobile device management.

HS2022-2023

- **Online Ticketing System for FC Biel/Bienne 1896** by Jonas Herzog and Adrian Berger: A foundation project to help the football club grow to the next level, executed with high quality standards. The project included detailed risk analysis for handling third-party issues and a make-buy analysis for optimizing build efforts, earning special recognition in the BFH newsletter.
- **Digital Retirement Planner** by Markus Joder: A retirement planning tool designed to be usable by anyone without requiring a "lock-in" to a specific financial services company. The application incorporated extensive business logic, combining Markus's professional financial planning experience with his IT education.

HS2021-2022

- **ElasticSniff** by Severin Thalmann: A project conducted between Swisscom and the Bern University of Applied Sciences involving software engineering and network technology. The project addressed an important business challenge, leveraging Severin's background as a talented and experienced network engineer.