Jakob Odersky | Curriculum Vitae

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Education

Ecole Polytechnique Fédérale de Lausanne
CS Pathway
Pathway courses for Master studies in computer science.

Lausanne, Switzerland
2013–2015

Ecole Polytechnique Fédérale de Lausanne
Bachelor studies
Bachelor studies in physics

Lausanne, Switzerland
2010–2015

Gymnase de Burier
Matura
Graduation with honorable mention and prizes in mathematics and physics. Including a one-year exchange in Gießen, Germany at Liebig Schule.

Burier, Switzerland
2007–2010

Experience

Vocational

Inpher Inc
Senior Software Engineer and Architect

New York, USA and Lausanne, Switzerland
Jan 2019–present

- Co-lead of the team responsible for the research, development and productionisation of a programming language for writing privacy-enhancing algorithms for data analysis, specializing on secure multiparty computation.
- Implementation of a distributed system for running such algorithms.
- Developer tooling and operations for productively working on a polyglot codebase shared by teams of multiple different backgrounds.
- Built various infrastructure tools to fit the scale of the business: single-sign-on service for clients, package repository, documentation system.
- Contributions to many open source libraries. Notably, porting many projects from Scala 2 to 3.

Driver Inc
Software Engineer

San Francisco, USA
May 2017–Oct 2018

- Architecture and development of the Scala platform that powers a treatment matching system for cancer patients.

Data Monsters
Advisor

San Francisco, USA
Apr 2017–Jan 2019

- Advisor for a consulting company, specializing in solutions around big data and machine learning.

International Business Machines (IBM)
Advisory Software Engineer

San Francisco, USA
Oct 2015–May 2017

- Part of the Spark Technology Center, IBM Watson Data Platform
- Contributor to Apache Spark and the Scala compiler
- Committer on the Apache Toree project

Crossing-Tech SA
Contract Developer

Lausanne, Switzerland
2011–2014

- Development and maintenance of the company's website.
- Implementation of a custom, version-controlled content management system.

Miscellaneous

Event organizer
2016–present

○ Organization, hosting of and speaking at meetups in the Scala community

Building a Drone from Ground-Up   *2014–2015*

○ Engineering a quadrotor.
○ Designing a controller circuit board.
○ Porting a real-time operating system and flight-stack to a new processor.
○ Implementation of virtual cockpit ground-control software.

Hobby Developer   *2009–present*

○ Implementation of a physics engine, as my school's final year project.
○ Development of a C and Scala library for low-level communication to actor based systems.
○ Creating and managing a custom server on an ARM development board
  - tweaking the Linux kernel
  - Debian packaging
  - various server administrative tasks
○ Building of a real-time kernel for embedded AVR systems.
○ Implementation of a scientific calculation utility library, with a focus on compiling specialized commands from Scala to Matlab.

Languages

German: fluent, European language level C2   *Mothertongue*
English: fluent, European language level C2   *Cambridge Certificate of Proficiency*
French: fluent, European language level C2   *School and University*

Computer skills

Operating Systems: Advanced knowledge and experience in GNU/Linux, especially Debian.

SysAdmin/Infrastructure/DevOps: Experience managing deployments with Kubernetes and Nomad. Provisioning with Terraform. Various cloud systems, notably Google Cloud, AWS and Azure. Observability tools: Prometheus, Grafana, Jaeger, OpenTelemetry

Programming Languages: Scala, C, C++, Python, Shell, Java, JavaScript, Matlab

Libraries and Frameworks: "Singaporean Stack", Akka, Apache Spark, Slick, OpenGL

Web Development: Cask, Akka HTTP, "Play!" framework, ScalaJS, AngularJS, Bootstrap

Source Control: Git, SVN

Office and Design Tools: LaTeX, Inkscape, KiCad, OpenSCAD

Other: In-depth experience with GnuPG

Interests

Tennis: Played a few years in a club, continuing for fun.

Computers and Electronics:
○ Developing software and hardware for my needs.
○ Open-source software enthusiast.

Dancing: Various dances, ranging from Standard to Salsa.

Brewing: Self-made beer.

Outdoors: Hiking.