



# Frank Schröder - Curriculum Vitae 2025

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## Profile

**Senior Software/Network Engineer and Team Builder** with 30+ years of experience in distributed systems, scalable architectures, industrial manufacturing, and MES/SCADA systems. Proven track record in designing elegant, low-maintenance solutions, building high-performing teams, and optimizing complex systems. Author and maintainer of several open-source Go libraries, including **fabio**, **gopcua**, and **properties**. Full-time Go developer since 2011, with expertise in troubleshooting, automation, and scalable backend design.

## Achievements

### PRINCIPAL SOFTWARE ENGINEER/ARCHITECT, NORTHVOLT, STOCKHOLM, 2018-2025

- Built Northvolt's first connected battery gateway system, deployed on hundreds of batteries, including hardware selection, software development, and 24x7 troubleshooting.
- Architected and implemented industrial data acquisition systems for thousands of machines, running on factory-floor k3s clusters.
- Developed and maintained a native open-source Go OPC/UA library, now widely used in factory systems.
- Grew the Edge Computing team from 3 to 12 members, mentoring junior developers and standardizing interview procedures across the software organization. Performed 300+ interviews.
- Led the design of Northvolt's next-generation MES system for large-scale battery manufacturing.
- Delivered live presentations to 100+ members of the digitalization department.

### SOFTWARE ENGINEER, HASHICORP, AMSTERDAM 2017

- Maintained **Consul**, stabilizing tests, builds, and startup times while eliminating race conditions and refactoring configurations.
- Developed **go-discover**, a cloud auto-discovery library, and became the #3 committer within six months.

- Continued development and maintenance of **fabio**, a consul-aware cloud load balancer.

#### **ARCHITECT, TEAM LEAD, EBAY, AMSTERDAM 2012-2017**

- Transformed the pay-per-click advertisement system into a scalable SaaS platform, deployed in three countries.
- Grew the team from 3 to 15 senior developers, conducting 120+ interviews and optimizing team composition.
- Migrated Java/Scala micro services to Go, improving scalability and maintainability.
- Open-sourced **fabio**, a zero-conf HTTP(S) load balancer.

#### **FREELANCE WEB APPLICATION DEVELOPER, ENAIKOON GMBH, BERLIN, 2010-2011**

- Designed and developed a geo-tracking system with a fully asynchronous, stateless architecture using JavaScript and Java.

#### **CONSULTANT, CREOLINK, YAOUNDÉ, CAMEROON, 2010-2011**

- Planned and installed a virtualization solution using VMware ESXi 4.x, reducing maintenance and operational costs.

#### **CONSULTANT, MINISTRY OF ENVIRONMENTAL PROTECTION/CIDE, YAOUNDÉ, CAMEROON, 2010**

- Set up and configured a web server and training environment using Ubuntu Linux and KVM virtualization.
- Developed and delivered hands-on training courses for three administrators.

#### **PARTNER, SHARPMIND, FRANKFURT, GERMANY, 2004-2010**

- Led development of scalable server-based applications, including navigation servers, product registration systems, and game servers.
- Managed 24x7 hosting infrastructure with 50 physical and 150 virtual servers.

#### **SENIOR SOFTWARE ENGINEER, AIRFLASH/WEBRASKA, FRANKFURT, GERMANY - 2000-2004**

- Designed scalable proximity search algorithms, achieving a 20x improvement in response times.
- Migrated build processes from make to ant, reducing build times from 5 minutes to 15 seconds.

**SENIOR CONSULTANT/ARCHITECT, CSC PLOENZKE AG, FRANKFURT, GERMANY - JAN-APR 2000**

- Architected and reviewed the portal architecture for a bank's news platform.
- Designed and implemented data input drivers for managing content feeds.
- Managed a team of developers to deliver data import modules.
- Set up independent internet access for 15 consultants.

**SENIOR CONSULTANT/ARCHITECT, NETSCAPE, MUNICH, GERMANY - 1997-2000**

- Designed and implemented large-scale automated web-hosting and email systems.
- Developed user interface frameworks using server-side JavaScript and LDAP.
- Installed and configured Netscape server software on scalable Solaris systems.
- Delivered training to 3rd-party support staff for Netscape's customers.

**FREELANCER/SOFTWARE ENGINEER, GERMANY - 1989-1997**

- Conducted code reviews and trained developers in C++ and software development.
- Managed a small development team for multimedia system projects.
- Designed and implemented a multimedia system for US Forces housing areas in Germany.
- Developed several shareware programs, including StickyNotes for Windows 95.

## **Education**

**University of Saarbrücken, Germany**

**Masters of Computer Science, 1997**

## **Skills**

- Programming: Go, TypeScript, Bash, SQL, Java, JavaScript, Terraform, C/C++, Objective-C
- Management: Team building, project management, technical training
- Operating Systems: Linux, Windows, Solaris, MacOS X
- Databases: MySQL, SQLite, Postgres, DynamoDB
- Networking: Web servers, TCP/IP protocols, load balancing, debugging
- Languages: German (native), English (fluent), Dutch (fluent), Swedish (intermediate), French (basic)

## References

### Open-Source Projects

- [gopcua](#) - Native Go OPC/UA library
- [fabio](#) - Zero-conf HTTP(S) router for Consul
- [properties](#) - Go properties library
- [Consul](#) - Maintainer at HashiCorp
- [go-discover](#) - Developer at HashiCorp