

# DAVID KRENTZLIN



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## PROFESSIONAL SUMMARY

I am a programming language geek, somewhat obsessed with typed functional programming, fascinated by high traffic distributed systems, a self driven learner and growing teacher.

With more than 15 years of experience as a software engineer I eat, sleep and breathe code, know how to approach complex systems and build components that meet today's demands.

I understand the importance of people and how to create an environment in which they can work together towards a common goal and find good solutions for challenging problems.

## WORK EXPERIENCE

**Senior Software Engineer** **XING SE** **Dec 2015 - Today**

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### XING One - GraphQL Gateway

- backend engineer on the core infrastructure team that planned, designed, developed and rolled out a GraphQL Gateway as the new data access platform for XING with currently ~20 million req/day
- improved data handling for mobile and web clients by providing a faster, safer and more robust way to fetch data using GraphQL
- planned and played integral role in the development of bigger parts fo the GraphQL service like file uploads, caching and logged-out support
- increased availability, resilience and performance of the GraphQL service through systematic measurement, profiling, monitoring and finally implementing the required changes
- built fast, secure, resilient and reliable HTTP level service to service communication
- created and carried out workshops to train engineers in GraphQL, Scala and XING One
- **leveraged knowledge** in Scala, Go lang, Ruby, GraphQL, Distributed Systems, Network programming

## **XING Webservice and public API**

- maintained and operated a RESTful API that is the primary data access mechanism for the XING mobile clients with more than 400 million req/day
- **leveraged knowledge** in Ruby, Ruby on Rails, AMQP, Caching, Redis, MySQL and Network programming

## **XING Messenger**

- introduced highly available, resilient and performant real-time update channel for the XING messenger
- designed and implemented new RESTful APIs to enable new features on the XING messenger
- developed load testing component to verify and measure the real time update channel of the XING messenger
- conducted performance and load testing for the new messenger platform
- improved the quality of the code base by driving and supporting a software design shift that provided a better basis for the development of features
- developed infrastructure to integrate the real-time channel written in Elixir with the XING platform
- **leveraged knowledge** in Ruby, Ruby on Rails, Elixir, Phoenix AMQP, Cryptography, MySQL and network programming

## **XING Messenger End-to-End Encryption**

- planned, designed and documented the integration of a Double-Ratchet Protocol for the XING messenger together with external crypto experts
- designed and developed the backend integration to bring End-To-End Encryption to the XING Messenger
- coordinated work of mobile engineers, backend engineers and external experts to bring the required encryption knowledge into the team and enable the delivery of End-To-End Encryption
- **leveraged knowledge** in Ruby, AMQP, Cryptography, MySQL, Network protocols

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## **Senior Software Developer      OMCnet Internet Service GmbH      2007 - Nov 2015**

- introduced more reliable and capable version of E-Mail policy service to enforce policies on the MTA
- automated operations workflows and developed solutions to manage a fleet of dedicated and shared servers
- designed, planned, set up and operated high-available solutions for storage and web services
- developed web based management interfaces for the dedicated and shared hosting environment
- introduced continuous integration pipeline to speed the delivery features for the internal products
- designed, setup and implement configuration as code with puppet
- **leveraged knowledge** in Ruby, C/C++, Perl, Scheme, PostgreSQL, MySQL, network protocols, operations

- fully automated layout engine to generate parts of a magazine with sport-statistical data, which eliminated the need for a lengthy manual layout process
- developed web based Interface for external customers to leverage in-house sports data
- automate workflows in the production of a sports magazine
- **leveraged knowledge** in Ruby, PHP, C/C++, Scheme, MSSQL, SXML, Quark

## EDUCATION

**Fernuniversität Hagen****Computer Science****2003 - 2006**

## SKILLS

- self driven learning
- good communication skills
- very good knowledge of programming languages, software design, software architecture and software development processes
- very good understanding of functional programming and idiomatic use of functional abstractions
- proficient with GraphQL, Scala, Ruby, Haskell, Scheme, PostgreSQL, MySQL, AMQP, Git, Unix
- familiar with Go lang, Elixir, Rust, Clojure, Common Lisp, C/C++, Kubernetes, Redis, Memcached, Varnish

## LANGUAGES

- German native
- English fluent

## HOBBIES AND INTERESTS

- programming language theory
- philosophy
- music / guitar