

Resume / CV

Martin Krasser

Homepage: <http://www.martin-krasser.de>

Profile: <http://www.linkedin.com/in/krasserm>

I'm a passionate software engineer and architect with 20 years industry experience. I primarily work on distributed systems, system integration, event sourcing, event stream processing and machine learning, including deep learning. I have experience with all phases of the software development lifecycle and with working in leadership roles. I'm a continuous learner and contributor to several open source projects. I enjoy working in teams and helping others to work more effectively.

Specialities

Distributed systems, microservice systems, system and application integration, event sourcing and CQRS, event stream processing, event-driven architectures, message-driven architectures, data-intensive applications, data analytics, machine learning, deep learning, resilience, scalability, high availability, domain-driven design, reactive programming, functional programming, object-oriented programming.

Work Experience

Since 04.2011 Software architect, engineer and consultant

Self-employed, <http://www.martin-krasser.de>

- Software development and consulting services with a focus on distributed systems, system integration, data-intensive applications, machine learning, including deep learning.
- Sabbatical year since 09.2017 for going deeper into machine learning and statistics.

Since 02.2017 Freelance software engineer and consultant

fine.lines.software GmbH, <https://bullet.io>

- Consultancy regarding the design and implementation of a distributed system architecture based on event sourcing with explicit causality that also includes mobile devices. Development of prototypes.

09.2014 – 08.2017 Freelance software architect and engineer

Red Bull Media House, <http://www.redbullmediahouse.com>

- Global distribution of the in-house digital asset management platform. Responsible for architecture, design and implementation.
- Conception and development of [Eventuate](#), a toolkit for event sourcing and event collaboration at global scale with causal consistency.

10.2015 – 07.2017 Freelance software architect and engineer

agido GmbH, <http://www.agido.com>

- Architecture and design consulting for an online sports betting web application with an event sourcing and event stream processing architecture.
- Usage of Eventuate as technical basis for the web application backend. Development of data analytics extensions for Eventuate.

10.2013 – 02.2014 Freelance software engineer

Lightbend, <http://www.lightbend.com/> (formerly Typesafe)

- Conception and development of [Akka Persistence](#).

03.2012 – 10.2013 Freelance software architect and engineer

Eligotech BV, <http://www.eligotech.com>

- Development of an E-Wallet management web service for customers in the online gambling industry.
- Conception and development of [Eventsourced](#), an open source project for building reliable, scalable and distributed event-sourced applications in Scala.

02.2011 – 04.2011 Software architect and engineer

Talend, <http://www.talend.com>

- Development of scalability and high-availability concepts and prototypes for the Talend Integration Factory.

01.2005 – 01.2011 Lead software architect and engineer

InterComponentWare AG, <http://www.icw.de>

- Conception and development of the [Open eHealth Integration Platform](#) (IPF), an eHealth integration platform on top of Apache Camel. Development and deployment of IPF applications in several international customer projects.
- Development of LifeSensor, a web-based personal health record.

09.2000 – 12.2004 Senior software architect and engineer

LION bioscience AG, <http://www.lionbioscience.com>

- Development and optimization of chemical classification algorithms for the drug discovery pipeline of an international pharmaceutical company. Integration of globally distributed chemical computing services into the drug discovery pipeline.
- Development of an activity tracking web application for pharmaceutical research projects.

02.1999 – 08.2000 Software developer, Research assistant

CAME, University of Salzburg, <http://uni-salzburg.at>

- Development of algorithms and software for ab-initio protein structure prediction. Application of statistical mechanics to evaluate generated protein

structures.

07.1998 – 01.1999 Software developer

Austrian Red Cross, <http://www.rotekreuz.at/>

- Development of a patient transportation management system.

Tools

- Programming languages: Scala, Java, Python, R, C/C++, Haskell.
- Java SE and Java EE stack plus many other Java libraries and frameworks.
- Lightbend Reactive Platform plus many other Scala libraries and frameworks.
- Confluent Platform (Apache Kafka and its ecosystem) and Reactive Kafka.
- Stream processing: Akka Streams, Kafka Streams, Spark Streaming.
- Machine learning: scikit-learn, Tensorflow, Keras, PyMC3, R, Spark MLlib.
- Databases: MySQL, PostgreSQL, Oracle, Cassandra, HBase, DynamoDB, MongoDB, LMDB, LevelDB, ...
- Cloud computing: Amazon Web Services and Google Cloud Platform.

Open Source Projects

The following is an incomplete list of open source projects I'm currently working on or worked on in the past.

- [Eventuate](#). A toolkit for event sourcing and event collaboration at global scale with causal consistency. Founder and lead developer during my work at the Red Bull Media House and active contributor today.
- [Akka](#). A toolkit for building highly concurrent, distributed, and resilient message-driven applications for Java and Scala. Contributed Akka Persistence and Akka Camel.
- [Streamz](#). A combinator library for integrating Functional Streams for Scala (FS2), Akka Streams and Apache Camel. Personal project that I'm still actively developing. Functional programming API on top of Apache Camel and successor of Akka Camel.
- [akka-persistence-cassandra](#). Storage plugin for Akka Persistence. Started as personal project and now officially maintained by Lightbend.
- [akka-stream-eventsourcing](#). Personal project brings to Akka Streams what Akka Persistence brings to Akka Actors: persistence via event sourcing. This is experimental work, inactive at the moment.
- [Eventsourced](#). A library for building reliable, scalable and distributed event-sourced applications in Scala. Founder and lead developer during my work at Eligotech. Evolved into Akka Persistence and is not maintained any more.
- [Open eHealth Integration Platform](#). A platform for developing health-care integration solutions. Founder and lead developer during my work at ICW.
- [Apache Camel](#). An integration framework based on known Enterprise Integration Patterns. Contributed several integration components as well as core functionality during my work on the Open eHealth Integration Platform.

Articles

- [Blog posts](#)
 - at krasserm.github.io since 01.2015,
 - at krasserm.blogspot.com until 12.2014.

- [Introduction to the Open eHealth Integration Platform](#). DZone, 05.2011.
- [Akka and Camel, Camel in Action](#), Manning, 12.2010.
- Geschützte Objekte - Instanzbasierte Zugriffskontrolle: Architekturkonzepte und Implementierung. Java Magazin, 07.2007, 42-49.

Talks

- [11.2015](#), Reactive Systems Hamburg - [Event Sourcing and CQRS with Akka Persistence and Eventuate](#).
- [10.2015](#), Scala User Group Munich - [Event Sourcing and CQRS with Akka Persistence and Eventuate](#).
- [06.2011](#), Scala eXchange 2011 - [Connecting Akka to the Rest of the World](#).
- 11.2009, W-JAX, Munich - [Die Open eHealth Integration Platform](#).
- 05.2009, ICW Developer Conference, Walldorf - [The Open eHealth Integration Platform](#).
- 05.2008, ICW Developer Conference, Walldorf - [Instance-based Security with the Security Annotation Framework](#).
- 11.2007, SOACon, Munich - [Implementierung von Enterprise Integration Patterns auf einem JBI ESB](#).

Certificates

- 02.2018, [Deep Learning Specialization](#).
 - 02.2018, [Sequence Models](#).
 - 12.2017, [Convolutional Neural Networks](#).
 - 12.2017, [Structuring Machine Learning Projects](#).
 - 12.2017, [Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization](#).
 - 12.2017, [Neural networks and deep learning](#).
- 11.2017, [Bayesian statistics](#).
- 11.2017, [Inferential statistics](#).
- 04.2014, [Machine Learning](#).
- 01.2014, [Principles of Reactive Programming](#).
- 05.2012, [Functional programming principles in Scala](#).

Education

- 1997 - MS in Chemistry (Mag. rer. nat.) with distinction, Karl-Franzens Universität Graz
- 1996 - Various courses in computer science