

Alexander Sennhauser

Engineer in Computer Science

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Objective

As an engineer in computer science (ing. sys. com. dipl. EPF) with emphasis on networking, databases, security and distributed system, I am passionate about applying my education and experience to build systems that solve real-world problems.

Technical Knowledge

- Systems software development in C/C++ for Linux platforms
- Design and Implementation of OO software systems
- Database systems including PostgreSQL, nCluster, and MySQL
- Networking technology including TCP/IP and related protocols
- Implementation of projects in Java (J2EE), C#
- Scripting with Python, Bash
- Web building standards including (X)HTML, CSS

Professional Experience

Member of Technical Staff at Aster Data Systems

San Carlos, California, United States of America

Oct 2007 – Dec 2009

- Early hire and member of the core engineering team making numerous contributions to Aster's large scale data analytics solution
- Responsible for the loading and exporting pipeline system components, scalable error logging for bulk loading, SQL-MapReduce based external data source connectors, various bulk loading utilities, data validation technology and client utilities
- PostgreSQL development with contributions to the open source community
- Design and implementation of the data transfer solution between multiple cluster instances
- Leading the technical efforts to integrate Aster nCluster with the Informatica PowerCenter data integration platform
- Contributor to Aster's large scale ETL system to transform click stream data; helped productize it at one of Aster's largest customers
- Performance analysis of large scale distributed systems, redesigning network architecture, performance analysis tool development
- Writing of customer facing best-practice guides
- Customer training sessions on Aster technology

Environment: Various Linux flavors, C/C++, Python, PostgreSQL

Linux Server Administrator at ARC Consulting and KÜLLINGoptik

Gossau, St. Gallen, Switzerland

2000 – 2009

- Network and server administration including a Linux based mail system, Linux file servers, and web-portal development (Environment: Debian and Ubuntu Linux, qmail, samba, php, MySQL)

Software Engineering Internship at Roche Molecular Systems

Pleasanton, California, United States of America

2006

- Development of an algorithm testing framework (ATF) of polymerase chain reaction (PCR) curves (Environment: C#, MSSQL, UML)

Education

Ecole Polytechnique Fédérale de Lausanne (EPFL)

Lausanne, Vaud, Switzerland
Master in Communication Systems
2005 – 2008

Ecole Polytechnique Fédérale de Lausanne (EPFL)

Lausanne, Vaud, Switzerland
Bachelor in Communication Systems
2001 – 2005

Academic Software Projects

A Framework and Interface for Hardware Fault Injection in Distributed Systems

Master Thesis, Prof. George Candea, EPFL
2008

- Design and implementation of a framework that allows for automated fault injection in a distributed system
- Open-source machine emulator to perform hardware fault injection at the level of hard drives, network components and cluster nodes
- Application programming interface to express failure scenarios and coordinate fault injection among nodes

Environment: Various Linux flavors, C/C++, Python

MockStock: A Stock Trading Application

Middleware, Prof. Benoît Garbinato, EPFL
2007

- Publish-subscribe stock trading application based on message oriented middleware enterprise technology (Environment: Debian Linux, Java including J2EE and JMS)

DEL: Distributed Event Logging

Principle of Dependable Systems, Prof. George Candea, EPFL
2006

- Reliable framework to automate data provenance collection for monitoring purposes in a distributed system (Environment: Debian Linux, Apache James SMTP server, MySQL, Java including JDBC, Perl)

Information System for a Ski Resort

Advanced Databases, Prof. Stefano Spaccapietra, Dr. Fabio Porto, EPFL
2006

- Data management (Object relational storage within Oracle DBMS, Oracle spatial, distributed database design) application (Environment: RedHat Linux, Oracle, PL/SQL, XML, Java including JSP and JDBC)

Interest and Other Skills

Language Skills

- Swiss German / German (mothers tongue)
- English (fluent, spoken and written)
- French (fluent, spoken and written)

Sports

- Soccer, Running, Mountain-Biking, Snowboarding, Tennis, Climbing

Other

- Traveling, Cooking, Photography

References

Furnished upon request