ROBERT KRAHN

SOFTWARE ENGINEER & RESEARCHER

***** TECHNICAL PROFICIENCIES

Languages JavaScript/TypeScript, Rust, Clojure(Script), Elixir/Erlang

Frameworks / node.js, Electron, React, vue.js, Angular/rxjs, Reagent, Qt, Gtk, native Win32 development /

Technologies C++, DirectX, OpenGL, WebRTC, AWS, Google Cloud / Firebase, etc.

Databases PostgreSQL, MySQL, SQLite, Neo4j, CouchDB

Methodologies Object-oriented programming, Functional programming, Data exploration & science, Machine

learning, Open-source project management

EXPERIENCES

since February 2020

Software Engineer

First employee, responsible for

• System architecture and data model (Firebase and AWS cloud)

- Frontend (Electron / vue.js)
- Windows integration (desktop capturing, video rendering based on DirectX11)
- Developing a data analytics platform and interactive business insight workspace

February 2020 | April 2019

Software Consulting

Independent

■ Berlin, Germany

• Developing parts of a new presentation software with Clojure / ClojureScript for Pitch.com

April 2019 | April 2018

Software Engineer

Google

Mountain View, USA

. Tooling & prototyping for the Google Assistant

• Applying machine learning techniques to improve human / computer interaction.

April 2018 | Oct 2017

Software Consulting

Independent

San Francisco, USA

• Front-end development for Y Combinator startups.

Oct 2017 | May 2016

Senior Researcher

Y Combinator Research

San Francisco, USA

• Designed and implemented the lively.next personal programming environment that is now an open source framework and used by startups for application prototyping and as a user interface library. <u>lively-next.org</u>

May 2016 | Jul 2012

Senior Developer And Researcher

Communications Design Group, SAP

Palo Alto, USA

- Research and development of programming tools supporting program comprehension and debugging.
- From scratch implementation of an IDE for the Clojure programming language (<u>cloxp</u>) that facilitates live programming and innovative debugging techniques.

Jun 2012

Software Engineer

Oct 2011 Zendesk

◆ Copenhagen, Denmark

 Design and implementation of a modular JavaScript front-end architecture for help desk applications with a Ruby-on-Rails backend. Special emphasis on extensibility and customizability by end-users.

Sep 2011

Research Assistant, Ph.D. Candidate

Software Architecture Group, Hasso Plattner Institute

Potsdam, Germany

- Industry cooperation: Created a web-based development platform for prototyping and rapid development in cooperation with the SAP Palo Alto Research Center. My work contributed to the SAP OpenUI5 project.
- Research and teaching, software development tooling, context-oriented propgramming, and modularity.

Mar 2009 | Aug 2008

Software Engineering Internship

Sun Microsystem Laboratories

Menlo Park, USA

• Implemented a programmable wiki in the Sun Labs Lively Kernel for collaborative online app development.

EDUCATION

2010 | 2005

M.Sc., IT Systems Engineering

Hasso Plattner Institute, University of Potsdam

Potsdam, Germany

- M.Sc. Thesis: Lively Wiki A Development Environment for Creating and Sharing Rich Web Content
- B.Sc. Thesis: Mapping Semantic Units between Squeak and Subversion

CONTACT INFO

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PORTFOLIO AND PUBLICATIONS

A list of my past projects, research publications, and talks can be found at https://robert.kra.hn.