Martin Josefsson, Software Development Consultant

PROJECTS

TIME TRAVEL CLOJURE DEVELOPMENT, SKAT, COPENHAGEN, DENMARK ALL 2019-2020

As part of the team at Skat, the Danish Tax Agency, we worked on implementing bitemporal datastores and retrieval, i.e. time travel databases, to be able to query the state of the nation at different points in time.

COMPILER CREATION ALL 2018

I took 2018 off as a sabbatical, to study interpreter & compiler writing, and type systems. It was been extremely fun, and I've learned so much! Have implemented functional programming languages, abstract type systems, and different styles of interpretation and compilation. These have been written in Haskell, OCaml, Rust, Javascript/Typescript, Racket, and Clojure.

SOFTWARE ENGINEERING & DATA SCIENCE, BRICKBLOCK, BERLIN (HTTPS://WWW.BRICKBLOCK.IO/) WINTER 2017

Brickblock were finishing their ICO (fundraising by minting and selling a blockchain currency, aka "token"). I helped them with writing the software to collect information about their investors, by analysing public data on blockchains and writing programs to compile this information into scheduled payouts of the token they created to reward investors. This was done using Clojure and Node.js. Also wrote Node.js web API that would receive Bitcoin and Litecoin signatures (they're public-private-key encryption systems) and store these away in a MySQL database. We ran the back-end on Google Cloud.

SOFTWARE ENGINEERING, SEARCHMETRICS GMBH, BERLIN (HTTPS://WWW.SEARCHMETRICS.COM/) 2017

SearchMetrics were during 2017 getting version 7 of their flagship SaaS app ready, and I helped them out with this. I ported their webapp from a legacy version of Relay to Relay Modern, which also meant working with the backend services for this, written in Node & Java, speaking GraphQL and REST, and storing things to relational databases.

CLOJURE DEVELOPER, JUXT, LONDON (JUXT.PRO) AUTUMN/WINTER 2016

As part of the JUXT team, I worked on rearchitecting the main web back end of their client MailOnline, one of the largest news organisations in the world. We were plagued by sometimes minute-long page loads (when without cache) and redid the architecture to be as asynchronous and purely functional as possible. The back end was a http-kit Clojure app, with ElasticSearch (frontend for Lucene) for quick dynamic article fetching, Redis for caching of different parts of the page, and Oracle DB as the place where content producers output would ultimately be fetched from.

CLOJURE DEVELOPER, TREEHOUSE STUDIOS, LONDON (WEARECLUBHOUSE.COM) SUMMER 2016

For Club House Studios client Tetley Tea I and 2 other Clojure developers created the Tetley Smile Challenge. The Smile Challenge is a web app where you watch funny clips - and is part of a campaign where Tetley pledges to "collect a million smiles" and donate $1 million to the Smile Train charity. The work involved face and emotion tracking (for automatically counting smiles), and was otherwise a normal Clojurescript app. We used Firebase as the back end (serverless).

NODE.JS DEVELOPMENT, MOMONA (GETMOMONA.COM**)** 2016
Momona (getmomona.com) is a pay-per-view service for content producers on the web. Content producers embed a Javascript snippet that displays a bitcoin address. When we see a payment to that address on the blockchain, the script will get the content and display that to the user. Works amazingly fast, try the demo on http://www.getmomona.com/. Momona is written in Node.js and Redis. Discontinued since the price of single Bitcoin transactions became >$1, and microtransactions thus were not feasible.

SENIOR JAVASCRIPT & FRONT-END DEVELOPER, EBAY/MOBILE, BERLIN, GERMANY 2015-2016
At eBay/mobile.de I wrote React.js for their car sales platform, enjoying a diverse set of tasks from architectural to implementing new features. I was leading the client-side effort, creating an app with technologies such as React, Webpack and programming in a functional style.

RAD CLOJURE HACKER 2015-2016
Rad is a text editor/hackers environment I made in hopes of replacing Emacs. It is free software, and the source is available at https://github.com/fromheten/rad. It is written in Clojure using core.async. I'm especially proud of the system for extending it, which shows how much you accomplish with little homoiconic code. Discontinued as Emacs is too good to give up.

SENIOR JAVASCRIPT & FRONT END DEVELOPER, AXEL SPRINGER, BERLIN, GERMANY 2014
At Axel Springer, the largest publishing house in the German-speaking world, I was leading the the development of the front-end for iPool. It is their experimental index of aggregated news content from a vast array of sources. I and my team created a large Angular app to aid the writers in research.

We created a lean code base by programming in a functional style, with simple data structures that flow thru the application & by utilising reusable UI components. Thanks to this the code base stayed small and fast. Thanks to avoiding side-effects refactoring and fine-tuning was easy & error-free.

FOUNDER, FRONT/BACK-END DEVELOPER, REMOTE BITCOIN JOBS 2014
Remote Bitcoin Jobs is a job board I bootstrapped as a side-project in the summer of 2014. I developed the app in Ruby on Rails and PostgreSQL, and set everything up around the business from getting a designer, to hosting and development.

JAVASCRIPT & FRONT-END DEVELOPER, BONAGORA GMBH, BERLIN-TOKYO (REMOTE) 2014
I worked with Bonagora developing their MVP. I wrote the web app in Ember.js, jQuery, Bootstrap (for responsive design) and used Jasmine for tests. I was living in Tokyo at the time, and worked remotely. The company was based in Berlin.

FOUNDER, DEVELOPER & DESIGNER, KANA REFERENCE, BERLIN, GERMANY/ TOKYO, JAPAN 2013-2014
I was travelling in Japan, and learned some Japanese. To help study I made a phone app with Cordova/Phonegap, Angular.JS and released it on the App Store. I did the whole project myself, from idea to shipping. It's a simple & small app. It's source is available here: https://github.com/fromheten/KaraRef.

JAVASCRIPT & FRONT-END DEVELOPER, GOSUB COMMUNICATIONS GMBH, BERLIN, GERMANY 2013

Worked on an advanced HTML5 game for ZDF, the German public service television network. The game was a companion product for their TV series. We implemented it using <canvas>, Angular.js and Pixi.js.

JAVASCRIPT & FRONT-END DEVELOPER, URLIST, BERLIN, GERMANY 2013
At Urlist my job was first of all to refactor the legacy code base, a very big Backbone.js app, to create solid tests (I used Jasmine) and to add new features & improvements. Worked with writing Javascript in a functional manner, something I love to bring into every project I do. We used Backbone.js, Underscore.js, jQuery & Jasmine for this.

RUBY ON RAILS DEVELOPER, PICKLED OLIVES SOFTWARE, BERLIN, GERMANY 2012-2013
Developed Ruby On Rails applications for clients, using Ruby, Rails, MySQL, PostgreSQL, Javascript, Coffeescript, jQuery, Git & Github. Introduced test-driven development at the company, something which vastly improved reliability & our speed forward.