Mauro Bieg

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Summary

Computer Scientist (MSc ETH Zürich) that gets things done.^{TM} Extensive experience designing code and processes in big companies and startups. I enjoy finding solutions that are as simple as possible, but no simpler. Always looking to put a dent in the universe.

Employment

Since 2023: CTO Polaris News, Zürich, Switzerland

Startup building a user-generated hyper-local news platform. User interaction and article generation with generative AI.

Hired part of the team. We followed the lean startup methodology, rapid prototyping, user-centered design, business model generation, etc. Implemented MVP using Astro, SolidJS, Supabase and Render.

2019-2023: Technical team lead front-end at Tamedia, Zürich, Switzerland

Tamedia is one the largest media groups in Switzerland. As the technical team lead for the web front-ends and native apps, my team of 11 developers was responsible for the platform delivering 13 websites, including www.tagesanzeiger.ch. Our frontend service handles a sustained load of 150'000 requests/min, with peaks exceeding 500'000. We have a modern CI/CD workflow with feature-branch-deployments, and auto-deployment to production as soon as a feature is merged.

I helped grow the skill-sets of my team members, and by building trust, significantly improved communication and processes between various teams and stakeholders. One of the first things I did was to move our team and our Next.js codebase from JavaScript to TypeScript. One of the last things was to move the development of our native apps in-house; hired one iOS and one Android dev, re-architected the apps as hybrid apps (Swift/Kotlin plus WebViews) and as promised, launched within a year.

2018-2019: Software engineer at *Fision Technologies* (since acquired by Zalando), Zürich

Fision Technologies is a startup with at that time around 20 employees. The product is a mobile app and accompanying back-end. End-users use the app to take photos of their body, from which a 3D-model is constructed, which is used to give size-recommendations for clothes when online-shopping on one of our customers' online stores.

I was working on both the front-end (React, TypeScript, GraphQL) and the back-end services. The latter were implemented using Python (Falcon and SQLAlchemy), exposed as REST APIs and ran on Google's Kubernetes Engine.

2015-2018: Co-founder and full-stack developer of 2324.ch, Zürich

My co-founder (a graphic designer) and I won an Impact Hub Zürich Fellowship with the idea of 2324.ch – a participatory hyper-local online news-platform. We quickly on-boarded a marketing/sales guy and soon acquired four paying municipalities. Unfortunately, that was not enough to sustain our growth vision, so we decided to hand-over the project and our customers to Crossiety, a startup sharing our vision of an online village square.

In addition to forming our team and product strategy, I implemented both front- and back-end of the online platform. My decision to go with a simple and proven stack (Ruby on Rails, PostgreSQL and some React) served us well, and allowed us to quickly iterate on the product.

2017-2018: Haskell developer for qua-kit, Chair of Information Architecture, ETH Zürich

In my part-time work, I supported Artem Chirkin, then a PhD student, in continuing the development of qua-kit, a web-based platform that assists urban designers in their design process.

I worked on both the front- and back-end, which were implemented using Reflex (a functional reactive programming framework on GHCJS) and Yesod respectively.

Previous jobs

2015: Software engineer at *mp technology*, Zürich

2014: Internship at *Silk*, Amsterdam, The Netherlands

2011-2014: Webmaster of the Departement of Computer Science at ETH Zürich

2012: Summer internship at *28msec*, Palo Alto, California, USA

Education

2013-2014: Master of Computer Science at ETH Zürich

2008-2013: Bachelor of Computer Science at ETH Zürich

2005-2006: Exchange year in Norway (high school in Kristiansund)

2003–2008: High school: Kantonsschule Romanshorn, Switzerland

1995–2003: Basic education in Horn, Switzerland

Select Projects

2014-2021: regular contributor to pandoc, a universal document converter – Haskell

2019: PanWriter, a Markdown editor with pandoc integration – PureScript, JS, Electron

2018: LED matrix display for Impact Hub Zürich – Python on Raspberry Pi

2014: Master thesis: a GUI tool to map any JSON-based Web API, plus a Node.js-based server to access it as if it were a HAL Hypermedia API

Experience

Programming languages:

extensive experience: TypeScript/JavaScript (React, Next.js, Express.js), Haskell, Ruby (Rails and Jekyll), Python, HTML/CSS, SQL

some experience: Rust, Java, PHP, C/C++

Technologies used in production:

Databases and services: PostgreSQL, MongoDB Atlas, AWS (S3, CloudFront, Beanstalk, EC2), Datadog cloud monitoring, GitHub, GitLab, CircleCi, Netlify

OpenApi (tsoa API and client generation), Storybook, JWTs, unit- and integration tests

Open source: github.com/mb21 and active on stackoverflow.com/users/214446 (>36k rep)

Writing: mb21.github.io/blog, articles for the Free Software Magazine

Talks: Pandoc at HaskellerZ

Languages

German: native language

English: Cambridge Certificate in Advanced English Grade A

Norwegian, Swedish: fluent