

# Vít Brunner

An all-round software developer with attention to detail. Started as a full stack web developer, specialized in backend. Playing around with machine learning.

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## EXPERIENCE

### **Swarms Technologies** — *Backend engineer*

DECEMBER 2016 - DECEMBER 2017, Bielefeld, Germany (working remotely)

Participated in architecting and building the RESTful API backing the Swarms' mobile app for workers and the admin interface for job providers. Built in Scala, using the Play Framework with Slick, Akka, and Cats, backed by PostgreSQL.

Introduced integration tests for the major user journeys, significantly reducing the number of regressions.

Migrated the backend to Docker, leading to a unified and predictable development environment and a speed up in continuous integration.

Created a simple Python SDK for the API.

Suggested several cost-optimization strategies for AWS.

### **Inviqa** — *Software engineer*

SEPTEMBER 2012 - DECEMBER 2016, Sheffield, United Kingdom (since 2014 remote)

Helped create a Docker-based continuous delivery pipeline. Built a service to check the health of Kubernetes clusters using Scala with Akka HTTP.

Co-implemented a REST API to facilitate and process donations for a large non-profit organization, created an extensive integration test suite using Behat, set up AWS infrastructure, Varnish cache, performed load testing with Gatling2.

Maintained a Symfony-based tool to help plan training and conference attendance of Inviqa employees. Prototyped a hyperlocal news application powered by Elasticsearch with an AngularJS frontend. Moved a large MySQL database to a different data centre with zero downtime.

### **Perfect World** — *PHP developer*

JANUARY 2010 - MARCH 2012, Amsterdam, Netherlands

Designed and created an in-house i18n system to cater to the specific needs of the company. Created reporting tools for the marketing and finance departments to make efficient business decisions.

Prepared and conducted technical interviews of developer candidates.

### **A-WebSys** — *Software developer*

NOVEMBER 2007 - FEBRUARY 2009, Brno, Czech Republic

Developed and maintained a wide variety of small to medium sized web applications in small teams. Zend Framework, MySQL, JavaScript.

Built a simple points-based eshop in an afternoon.

## TECH I LOVE <3

Scala (Play, Slick, Akka, Cats)

Python (Keras, Django, Pandas, Jupyter Notebook)

PostgreSQL

Docker (Kubernetes)

Git

Linux (Ubuntu, Debian)

REST, HTTP

TDD, BDD

## TECH I LOVE A LITTLE LESS

PHP (Symfony, WordPress)

MySQL

JavaScript (jQuery, Angular)

HTML, CSS

Subversion

## LANGUAGES

I speak Czech natively, English and Polish fluently

Dabble in German and French

## PERSONAL PROJECTS

### **Minotaur** — *Scala, Jupyter, Pandas, Keras*

A Monte Carlo tree search AI to play Quoridor. I can beat it.

Training a deep residual neural network learning from 200,000+ game records. Currently at 50%+ accuracy of estimating the next move.

### **Side By Side** — *AngularJS, CoffeeScript*

Easy visual comparison tool for different translations or versions of itemized texts; e.g. poems, bibles, etc. See it in action for Enchiridion and Tao Te Ching.

### **Zlej Rob** — *Python*

Evolutionary algorithm AI solver for RoboZZle. Solved 2,000+ puzzles. Currently in top 50 of the 50,000+ players. This was lots of fun.

### **Masonry Ordered** — *JavaScript, jQuery*

A jQuery plugin to keep elements in jQuery Masonry ordered. This solved a problem I turned out not to have, but some people still use it.

### **Tsumego Collections** — *TeX, Perl, Bash*

Created PDFs containing go problems gathered from various sources. A couple of years later, designed a website powered by Middleman and Twitter Bootstrap.

## COOL THINGS I'VE ACHIEVED

Organized Polish Summer Go Camp in 2010, 2016, and 2017. Introduced many improvements: different teachers for different grades, better tournament structure, play currency to bid for prizes.

Reached 4 dan in the game of go, studied in South Korea for three months under the kind guidance of Mr Kim Sung-Rae, 8 dan professional.

Cycled across Europe, following the Eurovelo 6 for two months, from the Atlantic to the Black Sea.

Translated KGS and its client software from English into Czech.

Successfully completed several online courses; one of the first MOOCs – the AI-Class by Sebastian Thrun and Peter Norvig, How Things Work by Louis A. Bloomfield, Beginner's Guide to Irrational Behavior by Dan Ariely, A Brief History of Humankind by Yuval Noah Harari, Machine Learning by Andrew Ng. Started and haven't finished many more.

## FAVOURITE FOOD & DRINK

Japanese and Chinese green tea, oolongs, and pu-erh

Strongly hopped ale

Very dark chocolate

## SPORTS

Cycling (no matter the wind, rain, snow, and ice)

Walking (especially while listening to a good podcast)

Running

Ice skating

Skiing (both cross-country & downhill skiing)

## OTHER ACTIVITIES I ENJOY

Playing board games

Getting locked in escape rooms

Baking bread