Václav Brodec

software developer

I am a programmer with eight years of working experience, which consists mainly of various projects based on Java platform, complex database applications, data analyses and presentations.

I have earned a master degree in Software Engineering and a bachelor degree in Computer Science. Through my studies, I have gained sizable experience in working with Open and Linked Data, as well as in implementing and extending classic dialog systems.

While programming is not only my job, but also long-time passion, I consider myself more of people person than a run-of-the-mill programmer. I truly enjoy connecting with non-technical people, understanding their needs in return, and translating them into elegant solutions based on working code. I welcome any opportunities that will allow me to continue to do so!

Contact

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Location

Prague 10, 108 00 CZ

Work

freelance software developer and data analyst (https://www.brodec.net)

programmer, data analyst

`2016-01-01 —`

continued collaboration with ADOL Monitor s.r.o.

ADOL Monitor s.r.o. (https://www.adol.cz)

programmer, lead programmer, data analyst

`2012-07-01 — 2015-12-31`

Working as programmer and data analyst at a company dedicated to monitoring and processing of unparalleled amount of exclusive data, modeling the market of real estates in the Czech Republic. Displayed in beautiful interactive maps with plethora of additional context, resulting in an invaluable tool whenever finding investment or business opportunities.

The company is the market leader and the largest local data provider of its kind. While it is renown for its high-quality products focused on auctions and foreclosed properties, it first made its name as the original Czech aggregator of all advertised real estates.

- Frequent co-organizer and participant of the most prestigious events and conferences in the real estates sector
- Preferred business partner of the largest real estate companies in the Czech Republic
- Integrated into the most popular applications supporting the business with real estates on the market

Projects

SKk

designer and programmer

ADOL Monitor s.r.o.

2019-05-15 —

Complete model and scraper for cadastral data

```
Java, jsoup, Jauntium, Docker, PostgreSQL, Hibernate, Spring Boot, cadastral data
```

ExtraRelaTable (https://github.com/brodecva/extrarelatable/)

researcher and programmer

Charles University, Faculty of Mathematics and Physics

2017-09-05 — 2019-01-18

Thesis project automating assignment of RDF properties to numeric table columns, to semantically identify the relations formed between the columns and the subject of the table.

```
Linked Data, Open Data, tabular data, semantic interpretation, numeric data, classification, RDF
```

Datové sady (https://www.adol.cz/sluzby/katastralni-data/)

back end programmer and database administrator

ADOL Monitor s.r.o.

2017-03-01 —

A tool which allows non-technical users to efficiently execute customizable SQL queries from a set of templates, format the output, and turn it into deliverable files.

```
jOOQ, JDBC, PostgreSQL, SQL, Apache POI, PostGIS
```

Estates watchdog, bankruptcies and distrainments monitor refactoring

architect and programmer

ADOL Monitor s.r.o.

2016-09-01 — 2017-12-01

Following a merger of ADOL Group and Monitor dražeb s.r.o., I was tasked to reorganize the structure and form of communication of several key legacy systems and expose their functionality through well-defined APIs, mainly to allow outsourcing of the presentation layer to front-end specialists, and to pave the way for their gradual replacement.

```
Java, Jersey, Spring
```

ODALIC (http://github.com/odalic)

team lead and programmer

ADEQUATe Open Data
2016-05-10 — 2017-06-16

Student project dedicated to developing a comprehensive user-friendly tool for transforming tabular data to Linked Data.

- Presented at Semantics 2016 conference, Leipzig

Linked Data, Open Data, tabular data, semantic interpretation, RDF, SPARQL

VFK extension

designer and programmer

ADOL Monitor s.r.o.
2016-01-01 — 2016-09-01

An extension of the official model of Czech cadastral data, to make it updatable from publicly available sources. As the established schema was too large to rewrite it manually, significant amount of schema generation from DB metadata was employed.

PostgreSQL, PL/pgSQL

Owlery

designer and programmer

ADOL Monitor s.r.o.
2014-03-01 — 2014-10-01

Custom HTTP proxy and balancer managing unreliable nodes.

Java, HTTP proxy

Monitoring of public bulletin boards for ČEPRO, a.s. (https://www.adol.cz/sluzby/uredni-desky/)

programmer

ADOL Monitor s.r.o.
2013-10-25 — 2014-02-01

Adaptation of existing infrastructure to accommodate the client's requirements.

Java, open data

Niffler

designer and programmer

ADOL Monitor s.r.o.
2013-08-01 — 2014-03-01

Chrome browser extension (and its back end) supporting manual scraping of sites.

JavaScript, PHP, PostgreSQL

Botníček (https://brodec.wordpress.com/botnicek/)

designer and programmer

Charles University, Faculty of Mathematics and Physics
2012-09-01 — 2014-12-08

Bachelor thesis project implementing advanced dialog management through augmented transition networks (ATN). The solution is remarkable in its adherence to the rather limited standard of AIML language, this allows deployment of the augmented bots in all standard interpreters without any modifications.

```
AIML, Java, chatbot, ATN, dialog management
```

APortal - 3rd generation redesign (http://www.adol.cz/)

back end developer and front end developer

ADOL Monitor s.r.o.
2012-08-01 — 2013-04-01

As my first major project for the company, I was tasked with feature overhaul of the breadwinning application, while turning it into new graphics provided by an external contractor. As the project started just before me joining in and lost its leader during its course, I had to step in to deliver, while making sure that the system remains operational for the active user base throughout the process.

```
Java, PostgreSQL, Spring, Hibernate, CSS, JavaScript, jQuery
```

Education

Charles University, Faculty of Mathematics and Physics
2015-09-23 — 2019-01-12

Software and Data Engineering, Master

Courses
```
NDBI036 - A Practical Approach to Database Systems
NSWI126 - Advanced Tools for Software Development and Monitoring
NDBI040 - Big Data Management and NoSQL Databases
NPRG014 - Concepts of Modern Programming Languages
NSWI144 - Data Integration and Quality
NTIN066 - Data Structures I
NSWI094 - Database Application Development
NPRG024 - Design Patterns
NTIN090 - Introduction to Complexity and Computability
NSWI041 - Introduction to Software Engineering
NPRG013 - Java
NSWI080 - Middleware
NSWI004 - Operating Systems
NSWI035 - Principles of Distributed Systems
NSWI149 - Software Engineering in Practice
NPRG023 - Software Project
NSWI130 - Software System Architectures
NDBI016 - Transactions
NSWI150 - Virtualization and Cloud Computing
NSWI108 - Web Semantization
NSWI145 - Web Services
```

Charles University, Faculty of Mathematics and Physics
2009-09-03 — 2014-09-14

Computer Science, Bachelor

Courses

```
NMAI062 - Algebra I
NTIN060 - Algorithms and Data Structures I
NTIN061 - Algorithms and Data Structures II
NAIL069 - Artificial Intelligence I
NAIL070 - Artificial Intelligence II
NTIN071 - Automata and Grammars
NDMI011 - Combinatorics and Graphs I
NSWI133 - Commercial Workshops
NSWI090 - Computer Networks I
NSWI021 - Computer Networks II
NDBI007 - Data Organisation and Processing I
NDBI025 - Database Systems
NDMI002 - Discrete Mathematics
NPRG045 - Individual Software Project
NSWI096 - Internet
NPFL012 - Introduction to Computer Linguistics
NSWI095 - Introduction to UNIX
NMAI057 - Linear Algebra I
NMAI058 - Linear Algebra II
NMAI054 - Mathematical Analysis I
NMAI055 - Mathematical Analysis II
NMAI056 - Mathematical Analysis III
NMAI069 - Mathematical skills
NPRG005 - Non-procedural Programming
NMAI042 - Numerical Mathematics
NOPT048 - Optimization methods
NSWI120 - Principles of Computers and Operating Systems
NMAI059 - Probability and Statistics
NPRG030 - Programming I
NPRG031 - Programming II
NPRG041 - Programming in C++
NAIL062 - Propositional and Predicate Logic
NPRG043 - Recommended Programming Practices
NPRG046 - Software Praxis
NPRG036 - XML Technologies
```

Publications

Discovering and Creating Relations among CSV Columns Using Linked Data Knowledge Bases (https://is.cuni.cz/webapps/zzp/download/120322200/)

`2019-02-04`

Master thesis

Development Environment Extending the Dialog Management Options of AIML (https://is.cuni.cz/webapps/zzp/download/130147720/)

`2015-01-26`

Bachelor thesis

Skills

Java development   Java, Spring, and Hibernate

Database programming   PostgreSQL and SQL

Languages

English
proficient user (C1)

Czech
native speaker

Interests

photography   analog, instant, street, architecture, and documentary

music   film scores, violin playing, and composing

pub quizes   trivia