

# Petra Millarová

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## ABOUT

A geospatial software developer with 2 years' work experience and a Master's degree in Geomatics with extra courses in Informatics, Algorithm Design and Analysis and Computer Networks.

## EDUCATION

### CZECH TECHNICAL UNIVERSITY IN PRAGUE

#### MSC IN GEOMATICS (ING.)

2017 - June 2019 | Prague, CZ

Cum. GPA: 1.53 (1-4, 1 is best)

#### BSC IN GEODESY, CARTOGRAPHY AND GEOINFORMATICS (Bc.)

2014 - 2017 | Prague, CZ

## SKILLS

### PROGRAMMING

#### PROFICIENT:

C++ • SQL • Matlab • XML

#### FAMILIAR:

Python • Bash • Visual Basic

• JavaScript

#### SOFTWARE & LIBRARIES:

MS Visual Studio • QtCreator

• Git • SVN • Boost C++ library

### GEOSPATIAL

#### SOFTWARE:

MicroStation • QGIS • ArcGIS

#### SPATIAL DATABASES:

PostGIS • Spatialite

#### LIBRARIES:

Mapnik • Leaflet • Psycopg

## LANGUAGES

English - fluent

Czech - fluent

German - basic proficiency

Russian - basic proficiency

## EXPERIENCE

### GEPRO | JUNIOR SOFTWARE DEVELOPER

Jul 2017 - Sept 2019 | Prague, CZ

- Improved and upgraded the library for company-made software.
- Development of Mapnik plugins that enable the user to edit spatial data.
- Extended the open source Mapnik library to display pie charts.

### GRV | LAND SURVEYOR

Jul 2016 - Jul 2017 | Roudnice nad Labem, CZ

- Successfully conducted topographic surveys, setting-out of land parcels, survey for purpose of building documentation.
- I was also in charge of the documentation of control measurements for gas pipeline building.

## PROJECTS

### POSTGRADUATE THESIS | COMBINATORIAL COMPUTATION OF COORDINATES IN THE GNU GAMA PROJECT | 2019

I proposed and implemented new methods of calculating approximate coordinates in a way that fixed the existing computation of long traverses and helped eliminate calculation with measurements containing gross errors.

- published as part of GNU Gama version 2.05
- distinction for an exceptional Master's thesis from the Department of Geomatics
- 1st place in the Vycichlo competition organized by the faculty's Department of Mathematics

GNU Gama: [www.gnu.org/software/gama](http://www.gnu.org/software/gama)

Thesis: [dSPACE.cvut.cz/handle/10467/83570](http://dSPACE.cvut.cz/handle/10467/83570)

### PRAGUE MICROBREWERIES | 2019

An interactive map showing user location and microbreweries in Prague.

Available here: [millapet.github.io/PragueMicrobreweries](https://millapet.github.io/PragueMicrobreweries)

Sourcecode: Github:// [millapet/PragueMicrobreweries](https://github.com/millapet/PragueMicrobreweries)

### GRADUATE THESIS SMOOTHING OF SPECTROMETRIC DATA | 2017

Implemented a console application that takes spectrometric data in xml format as input and outputs their smoothed coordinates according to the parameters that were set. This data was then used for research of recognition of different materials according to their spectrometry.

- distinction for an exceptional Bachelor's thesis from the Department of Geomatics
- 3rd place in the Vycichlo competition organized by the faculty's Department of Mathematics

Thesis: [dSPACE.cvut.cz/handle/10467/68743](http://dSPACE.cvut.cz/handle/10467/68743)

Sourcecode: Github:// [millapet/petra-millarova-bt](https://github.com/millapet/petra-millarova-bt)

## OTHER

2019 GNU Gama project administrator and contributor