

Petra Millar

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ABOUT

A Software Engineer with a Master's degree in Geomatics and experience in backend development. Engagement and Newsletter lead at Women+ in Geospatial. Currently located in Toronto, ON.

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
Python • Bash • JavaScript

SOFTWARE:

MS Visual Studio • QtCreator
• VSCode • Git • SVN

GEOSPATIAL

SOFTWARE:

MicroStation • QGIS • ArcGIS Pro

SPATIAL DATABASES:

PostGIS • SpatiaLite

LIBRARIES:

Mapnik • Leaflet • Psycopg

LANGUAGES

English - fluent
Czech - fluent
German - basic proficiency
Russian - basic proficiency

EXPERIENCE

OANDA | SOFTWARE ENGINEER

Nov 2019 - Present | Toronto, ON, Canada

GEPRO | JUNIOR SOFTWARE DEVELOPER

Jul 2017 - Sept 2019 | Prague, CZ

- Improved and upgraded the C++ 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.
- In charge of documentation of control measurements for gas pipeline building.

PROJECTS

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

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

Thesis: 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

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

OTHER

- **GNU Gama** administrator and contributor
- **Women+ in Geospatial** Steering Committee member
 - Engagement Lead - responsible for increasing positive engagement in the community
 - Newsletter Lead - in charge of creating and distributing the monthly internal newsletter
 - part of the team responsible for new branding rollout and website redesign in 2022
 - organised the Geospatial Writing competition and **webinar** in 2021