Eryk Warchulski

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Education

2015-2019 **Bachelor**, *Warsaw University of Technology, Faculty of Electronics and Information Technology*, Warsaw - Poland, *Electronics*.

2019-2020 **Master of science**, *Warsaw University of Technology, Faculty of Electronics and Information Technology*, Warsaw - Poland, *Computer science*.

Experience

06.2018-09.2018 **Data Engineer, Internship**, *Poland's Ministry of Finance*, Warsaw.
Project focused on a social network analysis (`Python`, `R` and `Neo4j` graph database)

02.2019-... **Machine Learning Engineer**, *Warsaw University of Technology*, Warsaw.
I participate in science and research project which is focusing on the optimization of energy consumption of cooling system for external company.

08.2019-01.2020 **Data Scientist**, *Polskie Technologie Sp. z o. o., PLTE*, Warsaw.
I worked as a DS and a partial DevOps Engineer for fin-tech company which is focusing on fincial risk modelling.

Programming

R full `Tidyverse` stack, `rlang`, `mlr/3`, `drake`, `RMarkdown`, `optim`, `caret`, `R6` class system

Python `Numpy`, `Tensorflow`, `Keras`, `Spade`

Haskell `Stack`, `QuickCheck`, general notion of functional programming i.e functors, applicative, monads, etc.

C `C11`, system programming, `posix`

C++ `STL`, generic programming, `C++11`

Scala beginner, learning in progress!

Technologies

Database `SQL`, `SQLite`, `Neo4j`, `Redis`

Docker `Docker Compose`

git GitHub, GitLab and Bitbucket ecosystem i.e. Travis, GitLab CI/CD, Jira

Unix/Linux advanced as a user and system administrator

Literal programming `Jupyter ecosystem`

Formal specification `Alloy`

Methodoglies Scrum, Kanban

Publications

PPSN2018 "Improving the Differential Evolution Strategy by coupling it with CMA-ES", Jaroslaw Arabas, Eryk Warchulski and Dariusz Jagodzinski

ELTE2019 "Optimization of ultra-thin magnetron sputtered aluminium films", Robert Mroczynski, Jaroslaw Arabas, Eryk Warchulski

PPSN2020 "Investigation of step-size adaptation methods for CMA-ES based on population midpoint fitness"

Engineering & science intrests

- Functional programming
- Optimization
- Nonparametric regression
- Evolutionary strategies

Projects (on my GitHub!)

R Modified regression random forest from scratch – modification concerns on selecting instances from dataset using kernel density estimate.

R Tools for and analysis of unsupervised novelty detection methods.

Python Convolutional neural network from scratch.

Python Multiagent trade market simulator.

C++ Efficient generator of Barabasi-Albert random graphs.

Haskell Pyramid puzzle solver.

Languages

Polish Native

English Intermediate *fluent reading and writing, good at verbal*