



# MICHAŁ MARTUSEWICZ

Software developer, BEng

✉ michal.mar3@gmail.com  
🐙 iCarrot

☎ +48 603 889 177

📍 Wrocław, Poland

🌐 michalmartusewicz

## EXPERIENCE

### Data engineer

#### Tipser

📅 Jan 2021 – Now

📍 Wrocław, Poland

#### Building text and image classification pipeline

Creating pipelines and solutions for the classification of both images and text. Using AWS SageMaker for classification and AWS Step Functions for training pipeline.

### Software developer and data scientist

#### Cloudflight Germany GmbH (formerly Catalysts Deutschland GmbH)

📅 Jun 2018 – Nov 2020

📍 Frankfurt, Germany

#### Projects:

- **Developing software for special satellites orbits types**
  - The project goal was to simulate and possibly launch satellites on highly elliptical orbit - to have a constant vision on north and south poles
  - Simulating satellite orbits (GMAT, OreKit, Python, Docker)
  - Live tracking and visualization (NumPy, Matplotlib)
  - predicting possible collisions
- **Airport luggage recognition and measuring system:**
  - The project goal was to embed in airport security gate a system which automatically measures passenger's luggage - to avoid cabin luggage space overloading
  - Creating proper image dataset
  - Image recognition (Python, TensorFlow, object detection API, Docker)
  - Creating point clouds using Intel rgb-d cameras and regular rgb cameras (PyRealSense, NumPy, matplotlib and other)
- **ShowMySize app by Twinstar**
  - The project goal was to create a backend to an app that measures the body's size and suggests suitable clothes
  - Creating backend of the app (Django, REST API for Django, Postman for testing)
  - Working with Amazon Rekognition
- **Improving image preprocessing for Austrian social insurance company:**
  - The goal was to improve mobile images of invoices and get better text recognition accuracy
  - Researching for different computer vision techniques
  - Using Google Tesseract OCR
- **Connecting two databases without common identifiers:**
  - The goal was to connect a product database and not normalized database with product reviews
  - Using various NLP (natural language processing) approaches

## MY LIFE PHILOSOPHY

*"It has never been so, that somehow it was not."*

## EDUCATION

### MSc in Computer Science

#### University of Wrocław

📅 2019–2021

📍 Wrocław, Poland

Thesis grade: 4.5, Studies grade: 4.5

### BEng in Computer Science

#### University of Wrocław

📅 2015–2019

📍 Wrocław, Poland

Thesis grade: 4.5, Studies grade: 4

### English course

#### Atlantic Language School

📅 2015

📍 Galway, Ireland

Upper-intermediate level

### Laureate of Regional Physics Olympiad

📅 2015

📍 Wrocław

### Secondary School no. III

#### Mat-mat class

📅 2012–2015

📍 Wrocław

### Regional Science Olympiad

#### "zDolny Ślązak"

📅 2012

📍 Wrocław

Laureate in Physics and Biology

Finalist in Mathematics, Chemistry and Geography

## LANGUAGES

Polish



English



German



- Created web app for presentation the results in 3 days (Django, Bootstrap)
- Managing summer interns for a short time

## Web Administrator

Foundation for the Development of Wrocław University of Economy

📅 2016–2017

📍 Wrocław, Poland

Reformatting web page hosted on WordPress with additional js customization (HTML, CSS, JS)  
<http://fundacja.ue.wroc.pl/>

## Internship

Parker Hannifin Manufacturing Poland

📅 Sep 2015

📍 Siechnice, Poland

Lean & Production internship

## MSC THESIS

Lattice extending strategies to correct results of automatic speech recognition system

The subject of the thesis was to improve the output of the automatic speech recognition system by adding more edges to the lattice. This thesis was part of the system which won the PolEval contest. The publication is available here:  
<http://poleval.pl/files/poleval2020.pdf>

## BENG THESIS

Agile development of an application supporting the tube fittings manufacturing management

The subject of the thesis was creating a project and managing it using the Scrum development framework and Unified Modeling Language. As a result of the project, an application supporting production management in Parker Hannifin Manufacturing Company in Siechnice was designed, implemented, and installed

## UNIVERSITY COURSES

Neural Networks and Deep Learning Algorithms for Big Data

Machine Learning Advanced Distributed Algorithms

Evolutionary algorithms Data mining NLP

Computational photography

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## COMPUTER SKILLS

### Advanced level

Python Pandas NumPy Matplotlib  
Django ML NLP Linux Git

### Medium level

PyTorch Bash Docker Lua C/C++  
Ruby PostgreSQL LATEX  
HTML + CSS + JavaScript Bootstrap  
C# AWS

### Basic level

Java OCaml Julia Nim Haskell  
Prolog

## OTHER PROJECTS

Organizing Catalysts/Cloudflight Coding Contests

[Open programming contest for university and high school students](#)

The contest is used as a promotion and recruiting tool in Cloudflight/Catalysts. I have co-organized 3 events, with more than 70 people per event

Automated Sudoku checker

[bit.ly/sudoku\\_checker](http://bit.ly/sudoku_checker)

The project involved neural nets to recognize handwritten digits and then finding errors

Compiler in prolog

[bit.ly/prolog\\_compiler](http://bit.ly/prolog_compiler)

The goal was to create a compiler of artificial language (based on algol68) on a simple processor. It was created in prolog

## INTERESTS

New / emerging technologies

Ballroom dancing Running Hiking

Skiing Sailing Traveling