



# MICHAŁ MARTUSEWICZ

Software developer, BEng

@michal.mar3@gmail.com  
iCarrot

+48 603 889 177

Wrocław, Poland

michalmartusewicz

## EXPERIENCE

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

## 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

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



## 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 automatic speech recognition system by adding more edges to the lattice. This thesis was part of 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 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

I hereby give consent for my personal data included in my application to be processed for the purposes of the recruitment process under the European Parliament's and Council of the European Union Regulation on the Protection of Natural Persons as of 27 April 2016, with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (Data Protection Directive)

## 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

### Basic level

C# 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 an 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

Cloudflight GmbH, Kaiser-Ludwig-Platz 5, D-80336 München

Michal Martusewicz  
ul. Folkowa 6  
PL - 55-010 Swieta Katarzyna

Munich, 30.11.2020

### Letter of Reference

Mr. Michal Martusewicz, born February 18<sup>th</sup> 1996, was employed at Cloudflight Germany GmbH (former Catalysts GmbH) from October 8<sup>th</sup> 2018 to November 30<sup>th</sup> 2020 as well as from June 27<sup>th</sup> 2018 to August 21<sup>st</sup> 2018 as Software Engineer.

Cloudflight is a leader in the European digitalization market. It brings together more than 400 visionary and highly-skilled strategists, software architects, data scientists, cloud engineers and consultants to co-create digital value. The company was founded in 2019 by uniting Catalysts, a pioneering solutions provider for customized software, and Crisp Research, a renowned IT research and consulting company. By combining their expertise, Cloudflight offers a holistic, end-to-end service portfolio, covering individual software development, strategic consulting and 24/7 cloud operation.

The company is headquartered in Munich, Germany, and operates 15 locations across five countries - Austria, Germany, Romania the Netherlands and Uganda. Working in agile, multidisciplinary and scalable teams, Cloudflight accompanies its clients on their digital transformation journey by designing, building and operating tailor-made platforms and applications to grow their digital business.

The tasks of Michal Martusewicz included the following:

- Software development for our eBagCheck project and other projects
- Software development for a one-man project for Twinstar (very good customer feedback)
- Organization and promotion of the Cloudflight Coding Contest in Poland

Mr. Martusewicz mainly worked with the following technologies:

- Python
- Tensorflow
- Numpy
- Pandas
- Flask
- Scikit learn

- Django

Other technologies he worked with included:

- Java
- Spring
- RxJava
- Angular
- Typescript

Michal Martusewicz was very reliable, motivated and showed a high degree of initiative and willingness to perform. In his activities he was always convincing in terms of quality and quantity. His behavior towards superiors, work colleagues and members of staff was always exemplary. We wish Michal all the best for his future and a successful career path!

Munich, 30 November 2020

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Elisabeth Volkmar  
Director People Operations