



## Michał Znalezniak

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[web-page](#) | [github](#) | [linkedin](#)

### SUMMARY

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My name is Michał and I'm a computer science student interested in deep learning, machine learning and building web applications. During my studies, I had worked with FPGA team of Jagiellonian University and I had the opportunity to participate in a several research project and scientific symposiums. I have also worked as a commercial C++ software engineer. At this moment I am mainly interested in studying optimization methods for deep learning models such as pruning and quantization. Currently taking part in Jagiellonian University's project bioNN.

### EDUCATION

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#### **JAGIELLONIAN UNIVERSITY FACULTY OF PHYSICS, ASTRONOMY AND APPLIED COMPUTER SCIENCE** *2017-2020*

B.S IN COMPUTER SCIENCE

- Graduated with GPA over 4.5.
- Bachelor thesis - "Study of how the precision of floating-point numbers affects the efficiency of neural networks".

### EXPERIENCE

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#### **JAGIELLONIAN UNIVERSITY - FPGA TEAM**

*2018-Summer / Intern*

RESPONSIBILITIES

- Development of software that prepares data for tANS compression, the compression and decompression module itself, as well as evaluations and optimizations of the developed software on FPGA devices.

ACHIEVEMENTS

- Completed research project "Implementation of tANS data compression algorithm on FPGA devices".
- Active contribution in the III FPGA Symposium 2018 - Presentation of the "tANS compression algorithm" project and finishing with III place in the competition for the best project.

#### **TRONEL SP. Z.O.O.**

*2019-07 - 2019-10 / Software engineer*

RESPONSIBILITIES

- Support building, deploying and automating projects with Jenkins.
- Designing and implementing the software in C++ 11 and C.
- Contribute to technical knowledge base by documenting technical problems and solutions.

#### **JAGIELLONIAN UNIVERSITY - BIONN**

*2020-06 - Current / Research scientist*

RESPONSIBILITIES

- Studying optimization methods for deep learning models such as pruning and quantization.
- Studying how pruning algorithms affect problems of image description.

## SKILLS

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### Web Applications:

- JavaScript | HTML | CSS | SCSS | SASS
- TypeScript | ReactJS | React Hooks | React Components | React Router | React Bootstrap | Gatsby
- GraphQL | ApolloGraphQL | Prisma
- Managing projects dependencies with node package manager.

### DataBases:

- Theoretical and practical grounding in relational databases.
- MySQL | PostgreSQL.

### Deep Learning:

- **Frameworks:** PyTorch | TensorFlow | Keras | Theano
- **Visualization tools:** TensorBoard | TensorBoardX
- **Worked with problems such as:** Supervised learning | Unsupervised learning | Image classification | Image segmentation | Image detection.

### Software Development:

- Programming Paradigms | GIT | Jenkins | CircleCI | Agile Methodology

### Data Processing:

- Numpy | Pandas | SciPy

### Programming Languages:

- C | C++ 11-17 | Python | JavaScript | Mathematica | Bash | AWK

## LANGUAGES

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### English

- C1 Level

### Polish

- Native speaker