

# Tomasz Hawro

Born: February 6, 1998

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## EDUCATION

- **Wrocław University of Science and Technology** Wrocław, Poland  
*Bachelor's degree - Biomedical Engineering, Medical Informatics (Grade 5.5)* 2017 - 2021
- **Wrocław University of Science and Technology** Wrocław, Poland  
*Master's degree - Artificial Intelligence* 2021 - Present

## SKILLS SUMMARY

- **Languages:** Python, Java, JavaScript, SQL, Android.
- **Libraries:** PyTorch, PyTorch Lightning, NumPy, Matplotlib, Optuna, scikit-learn, SciPy, pandas, plotly, OpenCV.
- **Tools:** GIT, GitHub, Jupyter, MLflow, DVC, AutoML, Streamlit, Docker, Sphinx, Linux, Linear, WandB.
- **Other:** Solid knowledge of classical machine learning and neural networks algorithms.

## EXPERIENCE

- **BonaSoft**  
*Python Developer* Mar 2021 - Jul 2021
  - **Backend development:** Implementation of REST API backend for a website. **Tech:** Python, Django, Swagger.
  - **Unit tests:** Implementation of unit tests for REST API calls. **Tech:** Python, Django.
- **MX Labs**  
*Machine Learning Engineer* Jul 2021 - Present
  - **Feature Engineering:** Implementation of state of the art (SOTA) feature extraction algorithms for Photoplethysmogram (PPG) signal. **Tech:** Python, NumPy, SciPy.
  - **Biomedical signals codebase:** Prototyping and implementation of object oriented codebase for biomedical signals processing. **Tech:** Python, SciPy, NumPy, pandas.
  - **AutoML:** Optimizing ML models and preprocessing pipelines with Optuna framework. **Tech:** Python, Optuna, Joblib, scikit-learn.
  - **Deep Learning (DL):** Implementation of SOTA DL architectures for blood pressure estimation task. **Tech:** Python, PyTorch, PyTorch Lightning.
  - **Research:** Versatile research on ML and DL approaches for blood pressure estimation based on PPG signals.
  - **Agile way of work:** Scrum-based work cycle with task board management in Linear.

## PROJECTS

- **Bachelor thesis:** Categorization of auditory evoked potentials using machine learning. **Tech:** Python, scikit-learn, pandas, NumPy, SciPy.
- **Master thesis (ongoing):** Influence of the input representation of medical signals on the quality of the results of machine learning models. **Tech:** Python, PyTorch, PyTorch Lightning, scikit-learn, pandas, NumPy, SciPy.
- **GlucoPred (ongoing):** Implementation of feature extraction and machine learning pipelines for glucose level estimation based on PPG, Accelerometer, EDA and Temperature biomedical signals. **Tech:** Python, NumPy, SciPy, BioSPPy, PyTorch, scikit-learn, Matplotlib, pandas
- **Covid19:** Web application for Covid19 data visualization. **Tech:** Python, Django, JavaScript, React.
- **Prenatally:** Mobile application for pregnancy monitoring. **Tech:** Java, Android, SQL.

## HONORS AND AWARDS

- Winning the Dean's Award twice.
- Winning the poster session competition at *OMatKo!!!* conference - November, 2021.
- Winning the competition of IT projects of the AI Tech Summer School during the poster session - May, 2022.

## LANGUAGES

- **Polish:** Native
- **English:** Proficient