Tomasz Hawro

Born: February 6, 1998

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EDUCATION

Wrocław University of Science and Technology

Bachelor's degree - Biomedical Engineering, Medical Informatics (Grade 5.5)

Wrocław, Poland 2017 - 2021

Wrocław University of Science and Technology

Master's degree - Artificial Inteligence (Grade 5.5)

Wrocław, Poland 2021 - 2023

SKILLS SUMMARY

• Languages: Python, Java, JavaScript, SQL, Android.

• Libraries: PyTorch, PyTorch Lightning, NumPy, Matplotlib, Optuna, scikit-learn, SciPy, pandas, plotly, OpenCV.

• Tools: GIT, Jupyter, MLFlow, WandB, DVC, AutoML, Streamlit, Docker, Sphinx, Linux, Hydra.

• 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.
- o Unit tests: Implementation of unit tests for REST API calls. Tech: Python, Django.

MX Labs

Machine Learning Engineer

Jul 2021 - Present

- Deep Learning (DL): Implementation of DL architectures for PPG signals based blood pressure estimation. Tech: PyTorch, PyTorch Lightning.
- $\circ \ \mathbf{DL} \text{: Implementation of lightweight CNN architectures for face metadata extraction.} \ \mathbf{Tech} \text{: PyTorch.}$
- o Research: Versatile research on ML and DL approaches for blood pressure estimation based on PPG signals.
- Feature Engineering: Implementation of feature extraction algorithms for the PPG signal. Tech: NumPy, SciPy.
- Biomedical signals codebase: Prototyping and implementation of object oriented codebase for biomedical signals processing. Tech: SciPy, NumPy, pandas.
- o AutoML: Optimizing ML models and preprocessing pipelines with Optuna. Tech: Optuna, Joblib, scikit-learn.

PROJECTS

- Bachelor thesis: Categorization of auditory evoked potentials using machine learning. Tech: Python, scikit-learn, pandas, NumPy, SciPy.
- Master thesis: The influence of medical signals representation on machine learning models results. Tech: Python, PyTorch, PyTorch Lightning, scikit-learn, pandas, NumPy, SciPy.
- GlucoPred: 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