Anna Mamchych

ML Engineer | Data Scientist

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PROFILE

Creative and disciplined data science enthusiast with a dual academic background in mathematics and informatics. Experienced in data visualization, statistical analysis, and programming, with a strong interest in AI and machine learning. Outside of my professional interests, I enjoy drawing, playing chess, as well as exploring the rich history of Ancient Egyptian mythology.

❖ **Machine Learning Researcher** **04/2025 – 11/2025**

UAM and ID-UB

Grant-funded project

- Conducted ML research funded by the 'Excellence Initiative – Research University grant'.
- Collected and preprocessed CT images; created a new annotated dataset (to be published on Kaggle).
- Trained and evaluated several CNN architectures for rare brain pathology detection (6/8 model's accuracy > 90%).
- Tools: Python, TensorFlow, OpenCV, NumPy, Pandas, Scikit-Learn.

❖ **Programming trainer for children and youth** **03/2025 – present**

Coding Giants

- Led programming classes about Python, ML and AI, C++, C#, HTML and Scratch for youth.

❖ **IT department Intern** **06/2023 – 08/2023**

PEPCO

- Processed, transformed, interpreted and visualized data.
- Managed and analyzed data using Excel functions, Pivot Tables and ERP.
- Developed reports in Power BI.

EDUCATION

❖ **MSc in Data analysis and processing / Data Science**

The Adam Mickiewicz University of Poznan

❖ **BSc in Statistics and Data Analysis**

The Adam Mickiewicz University of Poznan

- Thesis Project: Statistical analysis of the impact of the introduction of the "Safe Credit 2%" program on apartment prices in Poland (with Python).

❖ **BSc in System Analysis and Management. Data Science**

The Ivan Franko National University of Lviv

Research Projects:

- Three-step method of minimizing a function in a basis gradient method (with Python).
- Three-step method of minimizing a function in a basis difference analogue of the Davidon-Fletcher-Powell method (with Python).

SKILLS

- **Programming**: Python (Numpy, Pandas, Scikit-learn, Requests, Flask, OpenCV, TensorFlow); R, C++, HTML, CSS
- **Data**: SQL (PostgreSQL), NoSQL (MongoDB, Neo4j), Tableau, Excel | **Tools**: GitHub, Docker, Power BI
- **Soft**: Flexibility of mind, Attention to details, Critical and Analytical Thinking, Time Management, Problem-solving, Communication,

COURSES

- **DEEP LEARNING FOR BIOSCIENTISTS** — THE UNIVERSITY OF NOTTINGHAM
- **Convolutional Neural Networks for Medical Images Diagnosis** — Udemy
- **Umiejętności Jutra AI** — Google and SGH
- **Applications of AI for Anomaly Detection; Getting Started with Deep Learning** — NVIDIA

ADDITIONAL ACTIVITIES

❖ **Speaker at LIV International Biometrical Colloquium Conference-** "Comparing Machine Learning Methods in Detecting Fahr's Disease"

❖ **Speaker at Polish National Conference of Mathematics Students "Oblicze" -** "Gradient, but it's not about colors - gradient methods beyond mathematics"

❖ **Speaker at Poznań Festival of Science and Art -** "With Great Power Comes Great Responsibility! Artificial Intelligence in Creativity"

❖ **Vice President Of KNM** – Koło Naukowe Matematyków(Scientific Circle of Mathematicians)

❖ **Member of the Data Analysis and Processing Curriculum Committee**

❖ **Volunteer at "I Love Marketing & Technology" Conference -** Supporting the conference organization and coordinating the event

ACHIEVEMENTS

- Study@Research XI Edition - Laureate of the Excellence initiative- Research University (ID-UB) grant program.
- Women in Tech Camp - Participant of a 4-day camp for the most talented STEM students from Polish universities.
- New Technologies for Women - Laureate of the NTDD Ukraine grant program prize sponsored by Intel and Perspektywy.

LANGUAGES

English – Polish – Ukrainian