Anna Mamchych

ML Engineer | Data Scientist

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PROFILE

Junior ML Engineer and Data Scientist with a strong foundation in Mathematics and Statistics. Experienced in building end-to-end ML models (CNNs) and visualizing data for business insights (Power BI). Eager to apply skills in Python and SQL to optimize decision-making processes. Proven ability to explain complex technical concepts to non-technical stakeholders.

EXPERIENCE

❖ **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 (model's accuracy > 90%).
- Developed Python pipelines for data processing and image analysis using OpenCV and NumPy.

❖ **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.

PROJECTS

❖ Fahr's disease detection

❖ Statistical analysis of the impact of the introduction of the "Safe Credit 2%" program on apartment prices in Poland

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

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

Foreign University

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, PyTorch); 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"
- **Polish National Conference of Mathematics Students "Oblicze" -** "Gradient, but it's not about colors - gradient methods beyond mathematics"
- **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 AI Star** Scientific Circle.

❖ **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 grant program prize sponsored by Intel and Perspektywy.

LANGUAGES

Polish – Fluent

English – Advanced

Italian - Beginner