

Roman Wojtecki

Data Scientist — ML Engineer — ML researcher — Abu Dhabi, UAE

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[Github](#) [LinkedIn](#)

Work Experience

United Arab Emirates University

Apr 2023 - Current: *ML researcher*

- Created an automated system to generate various visual plots, enhancing the reader's experience.
- Designed and implemented an automated system for generating tables, streamlining data presentation processes, reducing manual errors by 90%, and saving 15 hrs per week for research teams.
- Spearheaded data preprocessing tasks, including cleaning and feature engineering, improving data quality by 40% and reducing model training time by 25% in medical research projects.
- Implemented automation for structuring MRI/CT images, streamlining preprocessing and model training tasks to save approximately 5-10 hours per week for colleagues.
- Engineered an innovative computer vision system to autonomously segment multiple sclerosis lesions, streamlining radiologists' workflow and boosting productivity metrics by an impressive 50%.
- Established a research log system to track progress of 3+ ongoing research projects and development of 10 new predictive models; increased project visibility and streamlined decision-making.

Byndyusoft

Jul 2022 - Apr 2023: *ML Engineer*

- Executed preprocessing and cleaning of textual data, utilizing advanced techniques like tokenization and stop word removal to enhance data quality, ensuring optimal performance of NLP models.
- Evaluated and fine-tuned machine learning models through cross-validation and hyperparameter tuning, enhancing model accuracy by 10% and achieving an F1 score of 0.98 for text classification.
- Optimized state-of-the-art NLP pipeline, achieving 50% model size reduction; seamlessly integrated new models, enhancements, and achieved 30% reduction in model deployment time.
- Orchestrated the implementation of a data-driven research log, resulting in a 25% reduction in project delays and a 30% increase in successful model iterations.

Magicly

Jun 2020 - Jul 2022: *ML Engineer*

- Developed a GAN-based algorithm to significantly enhance image quality, achieving notable visual improvements. This involved training the GAN on large datasets, implementing advanced loss functions to preserve image fidelity, and optimizing hyperparameters to balance between realism and sharpness.
- Created an automated technical support system for mobile applications, streamlining user assistance and improving response times.
- Developed an algorithm for image layer segmentation, enabling advanced color space editing and customization.

SUSU

Sep 2019 - Jun 2020: *Research assistant*

- Conducted research on enhancing economic forecasting using machine learning techniques.
- Implemented data cleaning, preprocessing, and exploratory data analysis (EDA) to prepare economic data for modeling.
- Evaluated and compared various machine learning algorithms and deep learning architectures (e.g., LSTM networks) for their effectiveness in economic forecasting.
- Integrated new frameworks and tools from machine learning and deep learning into traditional economic forecasting methodologies.
- Prepared and presented research findings in academic settings and contributed to the publication of research articles.

Education

SUSU **Sep 2016 - Jul 2020:** *Data Scientist*
Thesis topic "Enterprise bankruptcy prediction using machine learning techniques"

MIT **Sep 2020 - Jan 2021:** *Data Scientist*
Linear algebra,
Calculus,
Multivariable calculus,
Probability theory,
Mathematics for computer science

Berkeley **Feb 2020 - Apr 2021:** *Data Scientist*
Operating systems 162

Carnegie Mellon University **Apr 2021 - Jun 2021:** *Data Scientist*
Computer architecture 456

Technical Skills

- ✓ Python, R programming, C, Java, Kotlin, Git, Docker, Linux, k8s, Pytorch, Keras, Hugging Face, Tensorflow, MLFlow, pandas, numpy, SQL, Pyspark
- ✓ Deep learning (NLP, Computer vision), statistical analysis, hypothesis testing, data visualization, LLM, finetuning,

Soft Skills

- ✓ Problem-Solving, Attention to Detail, Communication (verbal and written), Collaboration and Teamwork

Publications

Forecasting Enterprises Bankruptcy by Extreme Gradient Boosting
Precision Medicine in Modeling Effectiveness of Corneal Cross-Linking for Keratoconus
Prognosticating Bariatric Surgery Outcomes in Pediatric Population

Languages

- English, Polish, Español