Vienna, Austria



Summary

Greetings! My name is Dmytro Zhuk, and I am currently pursuing a Master's degree in Data Science at the University of Vienna. I graduated from Kyiv National Economic University with a Bachelor's degree in System Analysis with distinction.

My research interests include but are not limited to: Human-Computer Interaction, Explainable and Transparent Artificial Intelligence, Natural Language Processing, Random Processes, and Reinforcement Learning.

Communicative, responsible, problem-solving, teamwork, creative, have great attention to details, able to work both in team and independently. I have analytical thinking, persistent in achieving goals, and optimist myself. Also, I like jazz music, opera, Italian art, and travelling.

Education

University of Vienna

MASTER'S DEGREE IN DATA SCIENCE

· Attending Master's program in Data Science.

Kyiv National Economic University named after Vadym Hetman

BACHELOR'S DEGREE IN SYSTEM ANALYSIS

• Completed undergraduate studies in System Analysis.

Vienna, Austria

Jan. 2025 - 2027

Kyiv, Ukraine

Aug. 2020 - Jun. 2024

Experience

CERN - European Organization for Nuclear Research

VISITING SUMMER RESEARCHER

- · Performed full-text retrieval and optimization for 500+ scientific papers, reducing systematic review time by up to 80%:
- ₩ NeutrinoReview Project
- Developed intelligent components to automate systematic review workflows.
- · Conducted research under the supervision of Elias Sandner (CERN) and Christian Guetl (TU Graz).
- Presented results at an international conference, resulting in one peer-reviewed publication.

SBA Research - Austria's largest dedicated cybersecurity research center

R&D Cybersecurity Analyst

• Designed and evaluated domain scoring models aligned with explainable AI principles.

- Leveraged large language models for automated threat reporting.
- Detected and analyzed 100+ domain generation algorithm campaigns, uncovering evolving threats.
- Applied regex, statistical analysis, and ML to identify malicious and stale domains.

Whalebone - award-winning cybersecurity company providing DNS security

THREAT INTELLIGENCE SPECIALIST

- Performed data mining, processing, analysis, and visualization of security data.
- Developed a domain classification system using open-source metadata with more than 84% accuracy.
- Deployed clustering and time-series models to predict domain outages.
- Designed mobile threat intelligence application with automated updates for 10k+ domains.

Volunteering

Kyiv National Economic University named after Vadym Hetman

STUDENT TEACHING ASSISTANT

• Created instructional materials, tests, and assignments for undergraduate courses.

- Developed content for "Simulation of Complex Systems".
- Developed content for "Python in the Analysis and Protection of Information".
- Developed content for "IT Project Management".

Geneva, Switzerland

Jul. 2025 - Oct. 2025

Vienna, Austria

Mar. 2025 - Current

Brno, Czechia

Dec. 2022 - Sep. 2024

Kyiv, Ukraine

Jan. 2023 – Jan. 2024

Skills

Programming Languages Python, Java, Matlab

Machine Learning & Deep Learning Scikit-Learn, Tensorflow, Keras, Pytorch

Natural Language Processing & LLMs NLTK, spaCy, Gensim, Transformers HF, Ollama, Langchain, Chroma

Data Mining Beautiful Soup, Urllib3, Selenium

Data Analysis Pandas, Numpy, Polars

Data Visualization Tableau, Microsoft PowerBI, Kibana, Plotly, Seaborn, Gradio

Software Development Git, Linux, Docker, Modal, K8s, Rancher

Databases SQL, NoSQL, Elasticsearch, MySQL, Microsoft SQL Server

Languages English (Fluent), Czech (Fluent), German (Good), Ukrainian (Native), Russian (Native)

Journal Articles

Model for Food Supply Chain Stability Under Climate Variability with Semi-Markov Processes

Aachen, Germany

Miroslava Růžičková, Irada Dzhalladova, and **Dmytro Zhuk**

20.

• Dynamical System Modeling and Stability Investigation International Conference (CEUR, Scopus).

Random Processes in Meteorology

Kyiv, Ukraine

VOLODYMYR HALITSYN, **DMYTRO ZHUK**, AND ANNA PETRYCHENKO

• Modeling and Information System in Economics Journal (MISE).

Conference Proceedings

Automating License-Aware Full-Text Retrieval for Systematic Reviews: An End-To-End Scalable System to Reduce Reviewer Workload

Helsinki, Finland

DMYTRO ZHUK, ELIAS SANDNER, IGOR JAKOVLJEVIC, ALICE SIMNICEANU, LUCA FONTANA, ANDRE HENRIQUES, ANDREAS

WAGNER, AND CHRISTIAN GÜTL

• International Open Search Symposium (OSSYM).

Designing Trustworthy Recommender System for Smart City Sustainability

Lviv, Ukraine

DMYTRO ZHUK AND IRADA DZHALLADOVA

2024

• Information and Measurement Technologies International Conference (LPNU).

Using Responsible Artificial Intelligence in Education: Digital Transformation of Acquisition of Professional Skills

Kyiv, Ukraine

DMYTRO ZHUK AND IRADA DZHALLADOVA

2024

• Digital Ecosystem of the Modern University International Conference (KNEU).

The Ethics of Artificial Intelligence: Challenges and Frameworks

Kyiv, Ukraine

DMYTRO ZHUK

2023

• Artificial Intelligence and Intelligence Systems International Conference (AIIS).

Honors & Awards

2024 **Honours Bachelor's Degree**, Kyiv National Economic University named after Vadym Hetman

2024 Best Bachelor's Thesis Awards, Kyiv National Economic University named after Vadym Hetman

Best Presentation and Poster Award, 1st Place, Intelligent Methods of Analysis of Cybersecurity Threats 2021

Conference

Best Presentation and Poster Award, 2nd Place, Analytical Support of Information Technology in

Cyberspace Conference

2020 Fully Funded Scholarship, Kyiv National Economic University named after Vadym Hetman

Extracurricular Activity _____

Personal Development and Hobbies

CERTIFICATES & INTERESTS

- Certificates: LLM Engineering, Convolutional Neural Networks, Machine Learning Engineer Career Track, High-Dimensional Data Analysis, Applied Machine Learning in Python.
- · Hobbies: Jazz, Opera, Travel, Classic Films, Tabletop Gaming.