Nazarii Nyzhnyk

Data Scientist & Machine Learning Engineer

About me:

Passionate about how the modern world is being revolutionized with AI and definitely want to be a part of this process.

Enthusiastic learner, with a strong will to provide research on complex topics that can bring value to a society. Have strong mathematical and development skills, analytical mindset, highly motivated, open-minded, team player.

Successfully led a team of 5 people, including data scientists, data analysts, developers and domain experts. Aware of all stages of ML lifecycle: from data collection to monitoring and maintaining model in production environment.

Key skills:

- Deep understanding of Machine Learning and Deep Learning approaches and techniques
- Supervised: classification, regression; unsupervised: clustering, dimensionality reduction algorithms; semi-supervised learning; RL: MABs
- Model tuning and validation, hyperparameter optimization, regularization, ensembling
- Structured (table) data and unstructured (text, audio, images, 3d objects) data handling
- Commercial and noncommercial (courses, pet projects, hackathons) experience with time series and tabular data processing, text processing (keyword extraction, classification, summarization, text generation, LLMs, finetuning, (Q)LoRA, RAG), image modeling and analysis (classification, detection, segmentation, GANs, pose-shape estimation, landmark detection, 2d-3d reconstruction), audio (speech2text, classification)
- Statistical data analysis, data mining, data visualization, data preprocessing
- Able to develop scalable and supportable clean code wrt standards

Technologies:

- Python (pandas, numpy, scipy, scikit-learn, matplotlib, seaborn, lxml, bs, nltk, spacy, huggingface transformers, smolagents, openai, langchain, langgraph, llamaindex, statsmodels, unittest, pytest, collections, django, FastAPI, openCV, pydub)
- R (dplyr, caret, shiny, doMC), Matlab, C
- PyTorch (+pytorch3d), TensorFlow (+tflite, tfjs), Keras
- h2o, xgboost, catboost, lightgbm
- Plotly (+dash), streamlit, Gradio, Tableau, PowerBI
- SQL (PostgreSQL, MSSQL, Oracle), NoSQL (MongoDB), ElasticSearch
- CI/CD, Linux, Bash, Jenkins, Docker, k8s, helm, prometheus, dynatrace, pagerduty
- Git, DVC, GitHub (+Actions CI), Bitbucket, pre-commit (black, mypy, flake)
- Azure DevOps, Jira, Trello
- Azure (ML, AI Search), AWS (EC2, S3), GCP (Vertex)

Education:

NTUU "Kyiv Polytechnic Institute", Applied Mathematics Faculty

Data Science and Mathematical Modeling Speciality (2017–2018), Kyiv — M.A. Machine Learning, Deep Learning, Data Mining, Fuzzy Mathematics.

Applied Mathematics Speciality (2013-2017), Kyiv — B.S.

Linear algebra, Calculus, Probability Theory, Statistics, Optimization Methods, Mathematical Modeling, Data Analysis, Algorithms and Data Structures.

Contact information

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In: Nazarii Nyzhnyk

Kaggle: <u>nazariinyzhnyk</u>

GitHub: nazariinyzhnyk

Languages

Ukrainian (Native)

English (Advanced)

German (Pre-Intermediate)

Czech (Beginner)

Experience

JustAnswer, Lviv / remote — Senior Machine Learning Engineer

Jan 2023 - present

US startup: Q&A platform that connects users with verified experts.

ML, NLP, DL, RL, Python (scientific toolkit, hugqingface, openai, LangChain, Flask, FastAPI), SQL (MSSQL)

- NLP research & development: utilization and finetuning open-source/API models, classical NLP algorithms, prompt engineering, LLMs, RAG, Vector DB, text classification, embeddings retrieval, text generation, chat assistants, semantic search etc.
- ML modeling: ltv prediction, disputes prevention, fraud detection, ads ppc keywords clustering, ASR, MAB & A/B experiments
- data analysis and reporting; results evaluation and presentation
- development of microservices to host ML applications with FastAPI, Docker, k8s; ML CI/CD pipeline support
- company-wide knowledge sharing sessions; new hires interviewing and onboarding, scrum master duties

3DLOOK, Kyiv / remote — Data Scientist & ML Engineer, Team Lead

Dec 2020 - Dec 2022

US-Ukrainian body reconstruction startup that offers human 3d body models with just 2 photos.

ML, DL, 3D, CV, Python (scientific toolkit, Django), PyTorch, SQL (PostgreSQL)

- preparation of a pipeline and testing hypothesis related to different cases of camera and body params to get useful insights about issues of the core 3d technology. Proposing ways to solve these issues.
- developing fitting and analytical features for parametric body reconstruction pipeline
- analysis of customers' data, fitting models to adjust core technology predictions for specific customers
- building analytical pipelines, presenting insights to business-side colleagues (including C-level managers)
- from Jul 2021 tech team lead: plannings, architecture and data collection decisions, 1-1s & PDPs, workload estimation, results reporting, hiring, onboarding/offboarding knowledge sharing, agile practices

SKF Group (ex. Presenso), Kyiv / remote — Data Scientist & ML Engineer

Oct 2019 - Dec 2020

Sweden predictive maintenance company. Predicting industrial machines failure with custom ML approach.

ML, DL, time series, Python (scientific toolkit), PyTorch, Matlab

- machines' sensors time series data analysis, detection and forecasting possible machine failures
- development of different improvements in existing ML and automatic reporting system
- moving existing logic from Matlab to Python, covering existing logic with automation tests

PIVIST LLC, Kyiv — Data Scientist & ML Engineer

Apr 2018 - Aug 2019

Switzerland fintech startup. Real-time algorithmic high frequency trading solution.

ML, DL, time series, Python (scientific toolkit), R (scientific toolkit), TF, Keras, SQL (PostgreSQL)

- research in the field of time series forecasting to develop trading solution from scratch;
- models validation and selection, productionizing of models, database administration
- analysis of high volume data, analytical reports preparation.

Data Science Activities

[HF] Agents Course (May 2025)

[Coursera] Natural Language Processing (NLP) Specialization (Jun 2023)

[Coursera] Generative Adversarial Networks (GANs) Specialization (Dec 2022)

[Coursera] Machine Learning Engineering for Production (MLOps) Specialization (Jun 2022)

[Hackathon] Hack4Retail Hackathon: assignment optimization - LB1 + best technical solution - (Nov 2021)

[Hackathon] SoftServe Hackathon: full text search - 2nd place (Aug 2021)

[Hackathon] CSC Hackathon: tabular+NLP - 3rd place (Jul 2021)

[Stepik] CV: Neural networks and Computer Vision (Samsung AI) (Jun 2020)

[Hackathon] Deloitte Data Science Hackathon: NLP - 2nd place (Apr 2020)

[Hackathon] Int20h Hackathon: Computer Vision - 3rd place (Feb 2020)

[Coursera] TF: Data and Deployment Specialization, deeplearning.ai (Feb 2020)

[Stepik] NLP: Neural networks and text processing (Samsung AI) (Dec 2019)

[Coursera] TensorFlow in Practice Specialization, deeplearning.ai (Aug 2019)

[Coursera] Deep Learning Specialization, deeplearning.ai (Jun 2019)

[Coursera] Machine Learning, Stanford University (Apr 2019)

[Genesis] Genesis Data Science School (Feb 2018)

[Kyiv School of Economics] Data Analysis in R (Feb 2018)