

ELENA

DL/ML Researcher

📍 Montenegro



EXPERIENCE

Lead Machine Learning Researcher

Botkin.AI - An AI platform for automatic analysis, remote description, and routing of medical images.

📅 10/2018 - 10/2023 📍 Location

- **Medical Imaging Framework and Diagnostic Decision Support Systems:**
- Developed algorithms and pipelines for primary Dicom data processing, ensuring consistency across diverse sources (Pydicom, Cupy, NumPy, SciPy, Scikit-learn)
- Created segmentation and classification models to detect various pathologies in CT, MMG, and DX medical images (PyTorch, Python)
- Worked closely with the medical team on data labeling and soft-label models for efficient labeling process
- Provided support and maintenance to project teams in pilot and commercial projects, enhancing customer satisfaction
- Led training and mentoring for junior team members, actively participating in the hiring process
- **Key Achievements:**
- Successfully developed and implemented production solutions
- Reduced data labeling time through consensus resolution models, creating a qualitatively labeled medical image database
- Published and defended multiple scientific articles in peer-reviewed journals, achieving state-of-the-art results in relevant tasks

Senior Machine Learning Engineer

IQ Option Global - An international platform for investing and trading in stocks

📅 10/2016 - 09/2018 📍 Location

- **Natural Language Processing and Chatbot Development:**
- Developed and integrated a multilingual NLP-based user support chatbot (Python, PyTorch, spaCy, text classification, sentiment analysis, language detection)
- Enhanced chatbot functionality for short message adaptation and rapid response optimization (RNN, seq2seq, word2vec, BERT)
- Achieved significant improvements in first-line support efficiency, including reduced workload, faster and higher quality responses, leading to increased user satisfaction
- **Financial Markets and Market Analysis:**
- Developed predictive models for spot market volatility and innovative options pricing for short-term periods, integrated them into the company's trading platform (Python, Spark, Scala)
- Contributed to creating and implementing digital option models to attract new customers and enhance user engagement in the financial markets sector

Middle Data Scientist

Biocad - An international biotechnological company.

📅 02/2015 - 10/2016 📍 Location

- In my **Bioinformatics and Computational Biology** specialist role, I developed tools and ML/DL models to advance protein annotation and deimmunization, contributing to key projects in directed evolution project (Python, Scala)
- In the pharmaceutical sector, I pioneered data harmonization and decision-making systems for auctions and tenders, enhancing company revenue and integrating advanced tools into CRM systems

SUMMARY

Experienced Machine Learning Researcher with more than a decade of expertise across diverse fields including bio-, medical- and financial technology. I possess a strong proficiency in both research and engineering, underpinned by an advanced understanding of mathematics, modern machine and deep learning theory and technologies. I excel in the crucial skill of executing tasks efficiently. My professional interests include computer vision, and I also have a passion for natural language processing (NLP).

LANGUAGES

English
Advanced



SKILLS

Computer Vision

Deep Learning

Machine Learning

Mathematics

Natural Language Processing

Nlp

Python

PyTorch

People Management

EDUCATION

Applied Math and Computer Science

Saint-Petersburg State University

📅 01/2006 - 01/2011 📍 Location

• <https://english.spbu.ru/>

EXPERIENCE

Machine Learning Researcher

CentrInvest - A hedge fund company

📅 10/2012 - 02/2015 📍 Location

- In financial market analysis and automated trading strategy development, I created and implemented advanced algorithms for long-term spot market trading (MATLAB, Java)