

Stepanenko Denis

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Professional Summary

Data Scientist specializing in medical imaging AI, computer vision, and time series analysis, with hands-on experience developing deep learning models for segmentation, detection, classification and multi-agent system design. Proven ability to deliver production-ready solutions with strong metrics. Seeking an internship with potential for full-time employment to contribute to scalable AI systems in business, signal processing, or autonomous agent applications.

Education

Saint Petersburg Electrotechnical University "LETI" St. Petersburg, Russia
Master of Science in Computer Science till 2027
Specialization: Distributed Intelligent Systems and Technologies

Saint Petersburg Electrotechnical University "LETI" St. Petersburg, Russia
Master of Science in Applied Mathematics and Informatics September 2021 – July 2025
Thesis: "Segmentation of Complex Breast Cancer Morphologies in DICOM Format" - Developed 3D segmentation pipeline achieving DSC 87.83% and HD95 6.26 mm on clinical datasets

Professional Development St. Petersburg, Russia
Intelligent Big Data Analysis, LETI September 2023 – September 2024
IT Project Management, LETI September 2025 – December 2025

Experience

STC St. Petersburg, Russia
Data Science Intern Jun 2024 – Jul 2024

- Trained YOLOv8x object detection model to localize radio signals on thermal maps, achieving F1-score 0.90 on approximately 10K annotated samples
- Implemented EfficientNet-B7 classifier with transfer learning for LoRa/GMSK signal recognition from amplitude-time spectrograms (time series classification)
- Modernized smoke detection pipeline by migrating to YOLOv8 architecture and simplifying image preprocessing workflow

OncoDetect AI (LETI Startup Accelerator & IV All-Russian Tech Entrepreneurship Forum) Russia
September 2025 – December 2025
Founder, Data Scientist

- Developing AI-powered medical software that automatically segments malignant breast tumors on routine chest CT scans, transforming standard CT procedures into high-precision diagnostic tools for breast cancer detection
- Solution integrates with hospital PACS systems to accelerate radiologist annotation workflows 40× faster, reduce tumor miss rates, and improve annotation accuracy
- Implemented hybrid transformer architecture (U-netR++) achieving 77.8% Dice coefficient and 3.57 mm Hausdorff distance (95th percentile) on complex breast cancer cases

Key Projects: <https://github.com/diss03>

Skills & Interests

- **Technical:** Python, Machine Learning (ML), Deep Learning (DL), Statistics, PyTorch, MONAI, NumPy, Pandas, Scikit-learn, YOLO, Roboflow, Seaborn, Matplotlib, Docker, Git, Linux, experience with Yandex DataSphere and Google Colab, database design, PostgreSQL, MongoDB
- **Language:** English B2, Russian Native
- **Interests:** Language learning, sports/fitness, project development, finance