Oleksii Krasnoshtanov

oleksiikrasnoshtanov@gmail.com | +31 6 29746862 | Tilburg, Netherlands
linkedin.com/in/oleksii-krasnoshtanov | github.com/alex-krasnoshtanov

Education

Breda University of Applied Sciences — Breda, Netherlands
BSc Applied Data Science & Artificial Intelligence; 9.1/10 (4.0 GPA); BUas Scholarship — Sep 2024 – Present

Projects & Technical Work

Measurement Trust Project | *Client project – CEVA Logistics, BUas; team of 4* — Sep 2026 – Jan 2027
- Data engineer on size-group misclassification at bol's BFC1/2 (bol-owned, CEVA-operated), driving fee disputes and re-measurement requests; obtained partly anonymised data from CEVA and bol, liaised with Logistore and third parties, co-wrote BRDs keeping proposals GDPR-compliant, ethical and clear to non-technical stakeholders

CV Pipeline – Plant Phenotyping Platform | *5-person group project, BUas* | Code | Docs — Apr – Jun 2026
- Built an MLOps platform for plant organ segmentation and root-tip detection: U-Net (ResNet-34) behind an authenticated FastAPI backend, with a Next.js frontend, PostgreSQL and Prometheus
- Ran the model lifecycle from Airflow DAGs: data versioning, Azure ML training, drift detection on confidence, latency and error rate, and retraining driven by researcher feedback on flagged predictions
- Owned deployment and CI/CD: one codebase shipping to Docker Compose, on-premise Portainer and Azure Container Apps, with blue-green cutover, health-gated rollback and OIDC cloud auth; 85% coverage gate, 430 tests

Dutch Sign Language Fingerspelling Trainer | *Solo rebuild of a group project* | Code | Docs — May – Sep 2026
- Real-time NGT alphabet trainer: MediaPipe landmarks feed a PyTorch residual MLP for the 24 static letters (95% validation) and a bidirectional LSTM over 30-frame sequences for the two needing motion (92%)
- Sole author: FastAPI WebSocket backend streaming to a Next.js 16 / TypeScript frontend, bilingual EN/NL, containerised with CI and published documentation

NPEC Plant Phenotyping System | *Individual project for NPEC, BUas* | Code — Nov 2025 – Jan 2026
- Ranked **#2 of 77** in a Kaggle root-segmentation competition and selected to present; built the full loop from U-Net segmentation and root-tip extraction to OT-2 pipette control in PyBullet, PID benchmarked against PPO

Emotion Timeline | *Solo rebuild of a group project for Content Intelligence Agency* | Code — Sep 2026
- Turned a 51-minute Russian documentary into a per-scene emotion timeline: 316 transcript segments grouped into 47 scenes, each scored by two models trained on different languages
- Built the pipeline behind the classifier: speech-to-text system selection, a training set assembled from datasets with no single language/class overlap, and error analysis on where the two models disagree

Hackathons & Competitions

BrabantHack 2026 | *Winner – Demcon Deep Tech Track* | Code — Apr 2026
- Won the Demcon track with a model that locates a pedestrian standing entirely outside the camera frame from the shadow they cast into it: 0.626 mean IoU on the organisers' hidden test set; team of 3
- Drove the gain by re-describing the box relative to the frame edge it hides behind – side, distance, width, height, y-centre – on a ResNet-50 trunk fused with 19 shadow descriptors: 0.468 to 0.610 mean IoU, reproducible from the repository

HERE Technologies Hackathon | *RDM Verification Challenge* — May 2026
- Built an XGBoost classifier for Restricted Driving Manoeuvre verification combining probe GPS features with Mapillary and OSM geospatial signals; designed synthetic data scrambling for NDA-compliant delivery

Technical Skills

Languages: Python, SQL, TypeScript
ML / Deep Learning: PyTorch, Scikit-learn, XGBoost, HuggingFace Transformers
Computer Vision: OpenCV, U-Net, MediaPipe, PyBullet
NLP & Audio: LangChain, Faster-Whisper, FAISS, Ollama, Gradio
MLOps & Cloud: Azure ML, Azure Container Apps, Airflow, MLflow, Prometheus, Trivy
Infrastructure: Docker, Docker Compose, Portainer, GitHub Actions CI/CD, uv, Ruff, pytest
Backend & Data: FastAPI, Pydantic, PostgreSQL, SQLAlchemy, Alembic, Pandas, NumPy
Frontend: Next.js, React, Tailwind CSS, WebSockets
Spoken Languages: English (fluent), Ukrainian (native), Russian (fluent), Polish (basic)