Oleksiy S.
Senior AI/ML and Infrastructure Engineer

SUMMARY

- 10+ years in AI/ML & Data Science, high-performance systems, 10+ years in DevOps and 5+ years in MLOps; - Expertise in Python, Asyncio, Aiohttp, Redis, PostgreSQL, Neo4j, ElasticSearch, and cloud platforms (AWS, GCP, Azure); - Experience with high-load environments, Redis queues, custom assemblies, and data isolation in production-ready systems; - Skilled in Active Directory integrations, NLP, similarity engines, and AI-driven architectures, with focus on context engineering, summarization, and agentic RAG pipelines (LlamaIndex, Quadrant, IntentRouter); - Experienced with both text and voice AI models (speaker identification, speech-to-text) and ontology-driven algorithms (PCA, classifiers, semantic understanding from scratch); - Knowledge of AWS services (S3, EC2, Fargate, EKS, Bedrock pipelines), Kubernetes, CI/CD automation, and cloud migrations (AWS to GCP); - Passion for NLP, AI, and similarity engines, with preference for applied AI/ML approaches over purely statistical methods; - Experienced leadership in R&D and engineering management, delivering production-ready AI/ML solutions in defense, search, and semantic platforms.

TECHNICAL SKILLS

Main Technical Skills	Python
Programming Languages	Python
AI & Machine Learning	AI, BERT, ClearML, CrewAI, GloVe, LangChain, LlamaIndex, LLM, NumPy, PyTorch, RAG, Scikit-learn, Spacy, Xgboost
Python Libraries and Tools	aiohttp, AsyncIO, Dask, Gevent, NLTK, NumPy, pytest, PyTorch, Scikit-learn, Werkzeug
Python Frameworks	Django, Tornado
PHP Libraries and Tools	WebOB
Data Analysis and Visualization Technologies	Apache Airflow, DataFrame library, Polars (pola.rs, DataFrame library)
Security	OpenVas, Tornado
Databases & Management Systems / ORM	AWS ElasticSearch, ELK stack (Elasticsearch, Logstash, Kibana), leveldb, MongoDB, Neo4j, PostgreSQL, Redis
UI Frameworks, Libraries, and Browsers	Foundation
Cloud Platforms, Services & Computing	AWS, GCP, Heroku

Amazon Web Services	AWS ElasticSearch, AWS EMR, AWS MQ
Azure Cloud Services	Hyper-V
Industry Domain Experience	SAAS
Deployment, CI/CD & Administration	ArgoCD, CircleCI, Drone CI, Drone Engineering, Helm, New Relic, Pulumi, Travis CI
Collaboration, Task & Issue Tracking	Atlassian Trello, Favro, IBM Rational ClearCase, Jira, OTRS, Slack
Message/Queue/Task Brokers	AWS MQ, Celery, Kafka, RabbitMQ
Logging and Monitoring	Cacti, Grafana, Jaeger, Nagios, Prometheus, Sentry, Thanos, Zabbix
Virtualization, Containers and Orchestration	Docker, Kubernetes, Proxmox, VmWare
Operating Systems	FreeNAS
Project Management & Administration	GLPI
File Systems, Storage	min.io
Platforms	monday.com, Quadrant
QA, Test Automation, Security	OpenVas, pytest, Unit Testing
Methodologies, Paradigms and Patterns	SOLID
Web/App Servers, Middleware	Tornado
Hosting, Control Panels	uWSGI

WORK EXPERIENCE

Head of R&D, NDA (Defense Technologies)

Duration: Feb. 2023 - May 2025

Summary: Established and led the R&D department focused on developing military technology solutions. Specialized in digital signal processing, ML-based analysis, and computer vision integrated with hardware systems.

Key Responsibilities:

- Built and managed the R&D department from the ground up;
- Developed production-ready solutions for signal processing and computer vision;
- Implemented robust data isolation strategies and optimized high-load ML pipelines for real-time analysis;
- Ensured scalability and precision of systems for battlefield deployment.

Result: Delivered robust and stable solutions successfully applied in military contexts.

Technologies: Machine Learning, Computer Vision, Signal Processing, Python, Hardware Integration.

Chief Engineering Officer, Ocean.io

Duration: Jun. 2016 - Nov. 2022

Summary: Directed engineering teams and product development for a global semantic search engine platform. Oversaw AI-driven solutions, technical strategy, and business-aligned engineering.

Key Responsibilities:

- Led multiple engineering teams across product lifecycle;
- Defined internal and business requirements;
- Supervised AI development and hands-on system architecture;
- Designed and implemented asynchronous codebases and a semantic web search engine from scratch;
- Built custom high-load assemblies with Redis queues, optimized data isolation, and integrated Active Directory authentication;
- Drove AWS infrastructure adoption and later migration to GCP.

Result: Created a unique SaaS product attracting European investment and wide user adoption.

Technologies: Python, Asyncio, Aiohttp, Redis, Kafka, PostgreSQL, Elasticsearch, Neo4j, AWS (S3, EC2, Fargate, EKS, ElasticSearch, Bedrock pipelines), GCP migration.

Core Engineer (Python), YAGA Inc.

Duration: Sep. 2015 - May 2016

Summary: Contributed to the development of a high-load mobile video messenger.

Key Responsibilities:

- Developed core application features under strict deadlines;
- Improved project performance and functionality.

Result: Successful release with all essential features in a short timeframe.

Technologies: Python, High-load Systems, Messaging Platforms.

Engineering Team Lead, CloneFish (EvoPlay, Gambling Platform)

Duration: Oct. 2014 - Aug. 2015

Summary: Managed development team for a high-load gambling platform, ensuring infrastructure stability and performance.

Key Responsibilities:

- Led engineering team and optimized workflows;
- Implemented infrastructure improvements and platform refactoring;
- Balanced team rotation and budget efficiency.

Result: Achieved platform stability and delivered a new core engine for company products.

Technologies: Python, High-Load Platforms, and Infrastructure Optimization.

CIO, MacHOUSE / VisionHOUSE (Media Solutions)

Duration: May 2012 - Oct. 2014

Summary: Directed IT strategy and infrastructure for a large AV integration and media solutions company.

Key Responsibilities:

- Led IT management and developer teams;
- Created development processes and guidelines;
- Oversaw infrastructure and process optimization.

Result: Delivered stable infrastructure and integration solutions for TV industry projects.

Technologies: IT Strategy, Infrastructure Management, Media Integration.

Engineering Manager, Bolid Ukraine (Security R&D)

Duration: Aug. 2011 - May 2012

Summary: Managed development of scalable security systems with GPS monitoring solutions.

Key Responsibilities:

- Oversaw project management and IT strategy;
- Led a small R&D team to develop monitoring systems;
- Applied ontology-driven algorithms (semantic understanding, PCA, classifiers) to enhance monitoring capabilities.

Result: Released monitoring system for transport infrastructure.

Technologies: GPS Monitoring, Scalable Security Systems, Ontology-based ML.

Technical Engineer, Legion Security Engineering

Duration: Jan. 2009 - Jul. 2011

Summary: Developed and integrated security systems software for hardware controllers.

Key Responsibilities:

- Designed and coded software for various security controllers;
- Integrated hardware and system-level solutions.

Result: Released the remote radio access controller as a product.

Technologies: Embedded Systems, Security Software Development.

Integration System Specialist, Makrocap Development (Property Management)

Duration: May 2006 - Nov. 2008

Summary: Implemented IT security and ERP integrations for property management solutions.

Key Responsibilities:

- Integrated ERP, billing, and security systems;
- Supported IT infrastructure optimization.

Result: Optimized business processes and deployed secure IT integrations.

Technologies: ERP Systems, Billing, Security Integrations.

EDUCATION

- **Engineer and Analyst of Computer System**s, Specialized Computer Systems, NTU KHPI (2010-2011)
- **Bachelor, Computer Systems and Network Computer Engineering** (2005-2009),

HOBBIES

- Free ride mountain skiing
- Gym, swimming, wakeboarding
- Professional photo
- Classical, electric guitars, digital and vinyl music collecting, djing