PETROS LAMBROPOULOS
AI & PRODUCT ENGINEERING LEADER
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PROFILE

AI and product-engineering professional with more than a decade of progressive responsibility in software development, applied machine learning, and data-driven product design. **Proven capacity to define and deliver scalable AI systems supporting commercial SaaS and enterprise environments.** Experienced in establishing strategic technology roadmaps, leading cross-functional teams, and embedding governance and reliability into production AI operations. **Combines academic research understanding with hands-on engineering experience** to create AI solutions that are measurable, compliant, and maintainable. Has worked within regulated and high-availability contexts, contributing to transformation projects and group-level technology strategy.

AREAS OF EXPERTISE

Generative AI Productisation | **Machine-Learning Engineering** | AI Strategy & Governance | MLOps Lifecycle Management | **Cloud & Data Architecture (AWS, Kubernetes, Terraform)** | Data Engineering & Analytics | **Software Reliability** | Product Integration | **Team Leadership & Mentoring** | Agile Delivery | Python, Django, FastAPI, PyTorch, LangChain, MLflow, Airflow, Spark, PostgreSQL, Elasticsearch, Redis

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PROFESSIONAL EXPERIENCE

WORKABLE – Athens, Greece
Senior Software Engineer, NLP and AI Team (2022–2024)

Context: Operated as a senior technical contributor within the core AI engineering function supporting Workable's global SaaS recruitment platform. The platform serves thousands of enterprise customers and processes extensive personal and behavioural data. Worked closely with product management, design, and infrastructure to embed AI capabilities at the core of the company's product roadmap.

Responsibilities: Accountable for the end-to-end architecture and development of AI microservices deployed on AWS EKS and integrated via Kafka-based asynchronous pipelines handling more than half a billion candidate records. **Defined standards for model lifecycle management, performance evaluation, and observability within production ML workflows.** Oversaw transition from R&D prototypes to stable services including job-post generation, interview-question synthesis, and automated resume parsing. **Provided technical leadership** in cross-team design reviews, ensuring adherence to latency targets, fault tolerance, and data-governance requirements. Acted as liaison between engineering management and data-science stakeholders to align AI initiatives with product objectives and compliance obligations.

Achievements: Delivered production-ready generative-AI functionality adopted across the Workable suite, increasing automation coverage and content-generation efficiency. **Established the foundation for internal MLOps governance** by documenting retraining and monitoring procedures.

Enabled engineering leadership to report measurable uptime and performance metrics for AI features during quarterly reviews.

Technical Environment: Python, FastAPI, PyTorch, LangChain, MLflow, Airflow, AWS EKS, Kubernetes, Helm, Kafka, PostgreSQL, Sentry, Prometheus.

NANNYML – Remote / EU
Senior Software Engineer (2021–2022)

Context: Early-stage startup focused on model-monitoring and drift-detection technologies for production AI systems. Operated in a research-to-market transition phase where proof-of-concept algorithms were being translated into enterprise-ready services.

Responsibilities: Participated in strategic definition of platform architecture and delivery roadmap. Collaborated directly with researchers to validate algorithmic behaviour and convert academic prototypes into containerised microservices deployable on Amazon EKS. **Defined CI/CD pipelines, test coverage frameworks, and observability dashboards aligned with ISO and SOC2 engineering guidelines.** Engaged in customer pilot projects to ensure traceability, reproducibility, and technical transparency for potential clients. Contributed to project documentation and participated in fundraising technical reviews.

Achievements: Delivered the first stable production build of the NannyML platform, reducing onboarding time for pilot customers by 50%. Enhanced platform reliability and data-pipeline resilience, directly supporting commercialisation. Acted as primary engineering representative during investor demonstrations, helping to secure early-stage funding.

Technical Environment: Python, Flask, Pandas, AWS EKS, Helm, Docker, GitHub Actions, Grafana, PostgreSQL.

ORFIUM – Athens, Greece
Senior Backend Engineer (2020–2021)

Context: Technology company providing music-licensing and royalty-management systems for global labels and publishers. Operated in a microservice environment with distributed data ingestion and analytics workloads.

Responsibilities: Designed, developed, and maintained Django/PostgreSQL applications supporting multi-territory ingestion and reconciliation of metadata. Implemented API instrumentation, performance tracing, and observability processes. Ensured compliance with regional content-protection and data-privacy requirements. Coordinated with data-analytics and business teams to deliver operational dashboards and performance insights.

Achievements: Improved fault detection and resolution through systematic logging and monitoring. Reduced mean time to recovery (MTTR) on incidents by implementing automated error classification. Supported release planning and risk reviews under the engineering governance framework.

Technical Environment: Python, Django, REST, PostgreSQL, Elasticsearch, Redis, AWS EC2, Grafana.

ENCODE S.A. – Athens, Greece
Software and Data Engineer (2015–2020)

Context: Cybersecurity and analytics solutions provider delivering threat-detection and situational-awareness products to enterprise and government clients. Operated as the de facto technical lead for a team of four engineers in the analytics division.

Responsibilities: Directed architecture and performance optimisation of large-scale PySpark and Elasticsearch pipelines processing datasets exceeding 100,000 user entities daily. Developed parallel-processing modules and caching strategies that expanded analytical throughput tenfold. Coordinated sprint planning, design reviews, and quality-control checkpoints. Collaborated with cybersecurity analysts to transform detection rules and machine-learning research into deployable analytics components. Supported pre-sales and client demonstrations, ensuring transparency of technical deliverables and alignment with compliance standards.

Achievements: Delivered stable big-data architecture used in several client deployments and security assessments. Reduced processing times and resource consumption while enhancing result reproducibility. Provided mentorship and skill-development guidance for junior engineers within the analytics team.

Technical Environment: Python, PySpark, MySQL, Elasticsearch, Redis, Celery, Git, Jira.

NEUROPUBLIC S.A. – Athens, Greece
Python Developer, Web Applications (2014–2015)

Context: Provider of smart-agriculture and environmental analytics platforms. Operated within R&D projects integrating IoT data with predictive models.

Responsibilities: Developed modular Python services for environmental and agricultural forecasting. Supported the adoption of CI/CD practices and testing automation. Provided documentation and operational support for deployed applications.

Achievements: Enhanced code reliability and reduced model-deployment errors. **Contributed to initial DevOps maturity roadmap within the R&D department.**

Technical Environment: Python, Flask, PostgreSQL, Jenkins.

SKYSCANNER – Edinburgh, United Kingdom
Intern Software Engineer, Data Acquisition (2012–2013)

Context: Global travel platform with continuous ingestion of large-scale flight and pricing data.

Responsibilities: Supported development of scraping APIs and automated pipelines for partner data integration. Conducted performance tuning and contributed to error-handling improvements for data-ingestion systems.

Achievements: Delivered code enhancements integrated into production pipelines, ensuring sustained coverage and accuracy of supplier data feeds.

Technical Environment: Python, REST, Git, Linux.

CONSULTING & INDEPENDENT ENGAGEMENTS

Dikaio.ai (2024): Provided strategic advisory on AI architecture for legal-tech startup. **Designed retrieval-augmented-generation (RAG) framework integrated with OpenAI APIs**, contributing directly to investor presentations and pre-seed funding.

Brain Metrics Initiative (2022): Coordinated technical response and resilience roadmap following large-scale DDoS incident. Developed mitigation plan including rate-limiting, caching, and WAF configuration via Cloudflare. Authored final post-incident report documenting governance and observability strategy.

Langaware (2021): Designed BERT-based NLP pipeline for cognitive assessment tools, conducted feasibility analysis for production scaling, and prepared technical documentation supporting R&D funding.

Beat (2020): Built predictive model for taxi-demand forecasting across Latin American markets, providing analytical insights used by data science leadership to assess business impact.

EDUCATION

MSc Computer Science – University of Edinburgh (2011–2012)
Graduated with distinction. Thesis focused on design and evaluation of parallel MapReduce operators for distributed data systems. Coursework included parallel algorithms, machine learning, and database management. Conducted independent research on optimisation of fault-tolerant computation frameworks and contributed to open-source data-lab exercises for subsequent MSc cohorts.

BSc Physics – University of Athens (2007)
Thesis on digital-signal-processor programming for real-time analysis of waveform data. Participated in **Erasmus exchange at University of Bonn (2004–2005)** focusing on applied computational physics.

PROFESSIONAL DEVELOPMENT

Athens NLP Summer School (2019): Completed intensive programme covering advanced topics in neural language models, contextual embeddings, and evaluation of NLP systems.
Big Data Architecture with Apache Spark (2018): Delivered project demonstrating optimisation of distributed Spark workloads for large-scale analytics.
Electronic Automation and Information Systems (2007–2009): Postgraduate-level training in computer systems design, embedded programming, and signal processing.
Continuous Learning: Regular participant in AI governance, MLOps best-practices, and cloud-native design seminars.

TECHNICAL ENVIRONMENT

AI / ML: Deep familiarity with large language models (**OpenAI GPT series, Anthropic Claude, Mistral, Llama**), LangChain orchestration, Pinecone vector database, Hugging Face Transformers, MLflow, PyTorch, Scikit-learn, BERT/transformer-based NLP pipelines, evaluation metrics (BLEU, ROUGE, perplexity), RAG workflows, and embedding generation.
MLOps / Data Engineering: Experienced in designing and deploying data pipelines using Airflow, Spark, and Terraform-managed infrastructure. Skilled in AWS EKS, EC2, S3, RDS, and Kubernetes orchestration. Implemented observability using Prometheus, Grafana, and Sentry; proficient in managing Elasticsearch clusters and Redis caching for performance improvement.
Software Engineering: Expert in Python ecosystem (**Django, FastAPI, Flask**) with experience in TypeScript and React for full-stack integrations. Strong background in relational database optimisation (**PostgreSQL, MySQL**) and continuous integration (**GitHub Actions, Helm**). Emphasis on code quality, modular architecture, and test automation.
Leadership and Collaboration: Experience mentoring engineers, conducting design reviews, facilitating cross-departmental communication, and maintaining governance documentation. Skilled in aligning technical strategy with business outcomes and supporting executive-level presentations.

Petros Lambropoulos
AI and Product Engineering Leader committed to building structured, transparent, and reliable AI ecosystems for modern enterprises.