EVANGELOS STAMKOPOULOS

Doctoral Researcher @ *ETH Zurich*

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PROFESSIONAL EXPERIENCE

i. Botnar Institute Spin-off (Stealth), Basel, Switzerland

AI Solutions Architect & Agentic Systems Lead Jun 2025 -

- Leading the design & implementation of the company's agentic capabilities, powering our flagship intelligence platform.
- Serving as architectural lead and code owner for our agentic repository.
- Delivering prototyping cycles from research concepts to deployable AI features.
- Acting as technical bridge between research, infrastructure and product leadership, de-risking delivery for pre-Series-A milestones.

ii. ETH Zurich, Department of Biosystems Science and Engineering, Laboratory for Systems and Synthetic Immunology, Basel, Switzerland

Doctoral Researcher, AI for Protein Engineering Jan 2024 -

- Developing advanced AI pipelines to support antibody design and optimization
- Enhancing protein language (e.g. ESM) and structural models (e.g. AlphaFold),
- Creating methodologies to leverage abundance of in-house data.
- Fine tuning & benchmarking protein language models for improved task-specific performance.
- Contributed core ML architecture to FcGPT, now commercialized via ETH spin-out (Fy Cappa Biologics AG; equity participant).

iii. Botnar Institute of Immune Engineering, Basel, Switzerland

ML & Infrastructure Engineer Sep 2024 – May 2025

- Joint position alongside the PhD studies, with the aim of computationally designing epitope specific antibodies
- Conducting next-gen research on AI for immune engineering.
- Playing a leading role in shaping the computational strategies and software infrastructure of the institution and providing substantial input into AI model development, data pipelines, and system architectures.

iv. Laboratory of Medical Physics & Digital Innovation, School of Medicine, Aristotle University of Thessaloniki, Thessaloniki, Greece

Software Engineer Nov 2020 - Dec 2023

- Full-stack engineering and project coordination for major EU-funded research projects, including:

1. ClinApp: Spearheaded Flutter-based patient app and SvelteKit back-end integration.
2. HosmartAI Hub: Developed Angular dashboard and Flask AI model integration for healthcare AI solutions.
3. ThessHF: Created a Flutter-based self-care app for heart failure support.

v. Software Engineering Agency, Thessaloniki, Greece

Founder, Software Engineer, Consultant Sep 2021 - Dec 2023

- Full-cycle engineering of projects and consulting for institution-level clients like Polyptychon, Athens Epidaurus Festival, NOESIS and others.
- Projects include interactive timelines with JS powered frameworks for seamless front-end and back-end content management, and Unity-based educational games.

vi. NextGrowth Novelty Corporation, Thessaloniki, Greece

Signal Processing Intern Mar 2020 - Aug 2020

- Conducting EEG signal processing and developing Gamified Multiple Object Tracking application in VR
- Transformed internship project into NeuroFootballCoach (See ENTREPRENEURIAL PROJECTS section), with a registered patent for a novel cognitive training procedure for football players using Multiple Object Tracking on real-world data.

ENTREPRENEURIAL PROJECTS

NeuroFootballCoach, Founder & Technical Lead

2020– Present

- Invented and patented (GR 1010685) a novel cognitive training methodology for elite football players using real-world Multiple Object Tracking data.
- €800,000 competitive non-dilutive R&D grant awarded under the Greek national "Research & Innovate" (ΕΡΕΥΝΩ–ΚΑΙΝΟΤΟΜΩ) program, co-funded by the European Regional Development Fund (ESPA).
- Leading all technical execution: AI architecture, cognitive modeling pipeline, system design, and productization roadmap.
- Bridging neuroscience, signal processing (EEG origins), and applied sports performance analytics.

EDUCATION

ETH Zurich, Basel, Switzerland

AI for Protein Engineering, PhD. Sep 2024 -

- Areas of concentration: Antibody engineering, PLMs, RL Pipelines, Computational Immunology.

Aristotle University of Thessaloniki, Thessaloniki, Greece

Biomedical Engineering, Master of Science. Sep 2022 - Sep 2024

- Areas of concentration: Computational biology, machine learning, statistics.

Aristotle University of Thessaloniki, Thessaloniki, Greece

Electrical & Computer Engineering, Master of Engineering. Sep 2015 - Oct 2021

- Areas of concentration: Software engineering, computer systems, machine learning.

SKILLSET

- Programming & Systems Development

- Python (advanced), JavaScript/Typescript, Dart (Flutter), SQL
- API design, microservices architecture, distributed systems design
- Production-grade repository ownership, codebase governance, software architecture

- Agentic AI & LLM Systems

- Multi-agent system design, LLM orchestration, MCP server/tool development, RAG, prompt engineering

- Machine Learning for Protein Engineering

- GPT & BERT based Protein Language Models (ESM2/3, ProGen2), Structural Biology Models (AlphaFold2/3, Boltz1), Reinforcement Learning (RL), Transfer Learning, Fine-tuning

- Cloud, Infrastructure & MLOps

- Cloud computing (Azure, Firebase, SLURM-based HPCs), Containerization (Docker), CI/CD pipelines, Microservices Architecture, Model Versioning & Experiment Tracking, Deployment of ML & LLM-powered services

- Frameworks & Tools

- LangGraph, LangChain, PyTorch/PyTorch Lightning, DeepSpeed, Hugging Face, Unity, Angular, Svelte, Flask, Node.js, Docker, Git, Tailwind CSS

- Languages

- English (Professional), Greek (Native), Chinese (Conversational)

PUBLICATIONS & PATENTS

*Equal contribution

- Edward B Irvine*, Thomas Bikias*, **Evangelos Stamkopoulos***, Lester Frei, Nick Schürmann, Annmaree K Warrender, Helen Schmid, Dimitri Coukos, Huilin Yang, Mason Minot, William Kelton, Sai T Reddy 2025

"Generative design of antibody Fc-variants with synthetic and programmable functional profiles"

bioRxiv, 2025.10. 10.681689

- T. Bikias*, **E. Stamkopoulos***, S. Reddy — 2024

"PLMFit: Benchmarking Transfer Learning with Protein Language Models for Protein Engineering"

NeurIPS 2024 Workshop on AI for New Drug Modalities

- E. Paraskevopoulos, **E. Stamkopoulos** et. Al. — 2024

"A sports simulation method for use in cognitive training and coaching athletes"

GR Patent 1010685, filed May 17, 2023, and issued May 13, 2024.

- E. Logaras, A. Billis, **E. Stamkopoulos**, P. Lagakis, I. Dimitriadis, A. Vakali, P. Bamidis — 2023

"Towards the Definition of an Intelligent System for Organizing Medical Visits and Collecting Medical Data"

Caring is Sharing–Exploiting the Value in Data for Health and Innovation, IOS Press,, p. 376-377

- P. Lagakis, E. Logaras, A. Billis, **E. Stamkopoulos**, I. Dimitriadis, A. Vakali, P. Bamidis — 2023

"ClinApp: A Microservices-Based Platform for Efficient Medical Visit Scheduling"

Healthcare Transformation with Informatics and Artificial Intelligence, IOS Press, p. 339:340

- T. Livanidou*, A. Billis*, **E. Stamkopoulos***, G. Romero, S. Molina, P. Bamidis — 2021

"Towards an accessible e-training platform for the ageing well of people with Cerebral Palsy and their caregivers: the case of CP-Ageing project: Identifying the Needs for the Accessibility of Adults with Cerebral Palsy (ACP) and their Supports to online training materials, including Assistive Technologies (ATs) to Enhance their ageing well."

PETRA '21: Proceedings of the 14th PErvasive Technologies Related to Assistive Environments Conference, p. 185:191

- **E. Stamkopoulos**, P. Antoniou, M. Dimitriadis, S. Sidiropoulos, P. Bamidis, E. Paraskevopoulos — 2021

"Neuroplastic Effects of a Gamified VR based Multiple Object Tracking Application"

2021 ELEVIT: 9th Panhellenic Conference on Biomedical Technology, p. 79