EVANGELOS STAMKOPOULOS

Doctoral Researcher @ *ETH Zurich* **| ML Engineer @** *Botnar Institute of Immune Engineering*

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CURRENT POSITION

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

Doctoral Researcher   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.

Botnar Institute of Immune Engineering, Basel, Switzerland

ML & Infrastructure Engineer   2024-

- 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.

EDUCATION

Aristotle University of Thessaloniki, Thessaloniki, Greece

Biomedical Engineering, Master of Science.   2022-2024

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

Aristotle University of Thessaloniki, Thessaloniki, Greece

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

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

PROFESSIONAL EXPERIENCE

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

Visiting ML Researcher, AI for Protein Engineering   2024-2024

- Fine tuning & benchmarking protein language models for improved task-specific performance.
- Developing an accessible platform for non-experts, enhancing computational research efficiency.

- Gaining deep understanding and mastering of PyTorch, transformer architectures and machine learning concepts.

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

Software Engineer, Researcher   2020-2023

- 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.

Independent, Thessaloniki, Greece

Software Engineer, Consultant   2021-2023

- 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.

NextGrowth Novelty Corporation, Thessaloniki, Greece

Software Engineer/Signal Processing Intern   2020

- Conducting EEG signal processing and developing Gamified Multiple Object Tracking application in VR

- Transformed internship project into NeuroFootballCoach, with a registered patent for a novel cognitive training procedure for football players using Multiple Object Tracking on real-world data.

PUBLICATIONS

*Equal contribution

- 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