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Summary

Research Scientist specializing in Large Language Models (LLMs) and Reinforcement Learning (RL). Proven scientific record with over 1,000 citations and publications in top venues (e.g., *NeurIPS, ICML*). Co-Authored the multi-agent RL textbook, published by MIT Press. Strong technical background in coding and training machine learning models across diverse applications.

Experience

Research Scientist, Huawei – London, UK — 2023 – present

- Designed a machine learning-based control architecture for real-time task execution across mobile apps. Leveraged a compact Transformer with a vision-language model (VLM) to achieve up to 42% improvement over prompt-based GPT4 baselines.
- Improved a Decision Transformer model for PCB placement by incorporating a mixture of Gaussians to handle continuous action spaces, resulting in a 22% performance gain over the prior discrete-action model on real-world data.
- Led the development of an AI-Agent (LLM based) modular framework, enabling flexible, task-specific decision-making. Achieved success rate improvements from 27% to 82% using SFT and up to 91% with RL in complex environments.

Research Scientist, Intern, NVIDIA – San Francisco, California (remote) — May – Dec. 2022

- Developed BiVO, a generative model using variational autoencoders to predict occluded traffic agents' trajectories, enabling integration with planning for autonomous vehicles. Tested on the nuScenes dataset, BiVO achieved up to 8% lower planning cost compared to other occlusion predicting baselines.

Research Assistant, ENECIA – Athens, Greece — 2017 – 2018

- Collaborated with UC Berkeley researchers in a startup environment to create power-consumption prediction models and EV battery charging plans, by employing *Gaussian processes, model predictive control, and similarity-based* methods.

Education

University of Edinburgh, PhD in Artificial Intelligence — 2019 – 2023

- Used reinforcement learning algorithms (e.g., *A3C, PPO, DQN*) to develop novel multi-agent methods. Published as first author in 2x *NeurIPS, ICML*, and *TMLR*. Supervised by Dr Stefano Albrecht and examined by Dr Frans Oliehoek.
- Teaching Assistant for MSc-level Reinforcement Learning, designing coursework and leading sessions on Deep RL. Mentored and supervised two MSc students through their thesis projects.

University of Edinburgh, MScR in Robotics and Autonomous Systems — 2018 – 2019

- Graduated with Distinction, completing coursework in Machine Learning, Reinforcement Learning, and Robotics.

Technical University of Crete, BSc & intgr. MSc (5 yrs) in Electrical and Computer Engineering — 2009 – 2016

- Achieved top thesis score (10/10) and a peer-reviewed publication. Studied Computer Science, Electronics, and Telecommunications with elective courses on Artificial Intelligence, Game theory, and Multi-Agent Systems.

Selected Publications – Google Scholar

Lightweight Neural App Control — 2024
First author — In NeurIPS workshop on Open World Agents. Under review in main-track conference.

Multi-Agent Reinforcement Learning: Foundations and Modern Approaches — 2024
Co-author — Textbook by The MIT Press, endorsed by Andrew Barto, Michael L. Littman, Peter Stone, and others.

Pareto Actor-Critic for Equilibrium Selection in Multi-Agent Reinforcement Learning — 2023
Joint first author — In Transactions on Machine Learning Research (TMLR)

Benchmarking Multi-Agent Deep Reinforcement Learning Algorithms in Cooperative Tasks — 2021
Joint first author — In Advances in Neural Information Processing Systems (NeurIPS).

Scaling Multi-Agent Reinforcement Learning with Selective Parameter Sharing — 2021
First author — In International Conference on Machine Learning (ICML).

Shared Experience Actor-Critic for Multi-Agent Reinforcement Learning — 2020
First author — In Advances in Neural Information Processing Systems (NeurIPS)

Skills And Additional Experience

Machine Learning Frameworks: PyTorch, HuggingFace, NumPy, PyTorch Lightning, pandas (Python).

Other Technical Skills: Expert knowledge of Linux systems and scripting. Containerization (Docker and Kubernetes). Version Control (git). Past experience with C and C++.

Technical Communication: Delivered invited lectures at University College London (2023), KTH Royal Institute of Technology (2024), RL-China (2024). Presented at seminars for institution including Berkeley Multi-Agent Seminar Group (2022), UoE (2020 – 2023), Motion2AI (2023). Skilled in presenting complex ML topics to both technical and interdisciplinary audiences.

Open-source Projects: E-PyMARL (500+ stars), MARL codebase (300+ stars), RWARE (300+ stars), LBF (150+ stars).