

Christos Melidis, PhD

AI & Machine Learning

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📍 Thessaloniki,

Greece

Machine Learning Scientist with over a decade of experience in Conversational and Generative AI. I bridge research and production, architecting and deploying scalable AI systems that impact millions of users. Passionate about innovation, I transform cutting-edge research into real-world applications.

I thrive at the intersection of applied research and production systems, integrating testing, performance evaluation, and AI explainability into robust solutions that advance both user experience and scientific understanding.

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Core ML Stack: Python,
PyTorch, TensorFlow,
Transformers, LLMs

ML Domains: Generative
AI, NLP, Speech
Processing,
Conversational AI

Supporting Tools: REST
APIs, Docker, FastAPI,
LangChain, Weaviate

Other: SQL/NoSQL,
Linux, Git, CI/CD

Experience

Ada Support LTD / Staff Machine Learning Scientist - R&D

[<https://www.ada.cx/>]

Feb 2024 - Present, Toronto [Remote]

Leading Generative AI efforts through Applied Research. Work resulted in 3 patents related to Conversational AI technologies. Worked end to end on conception, design and implementation of ML based product improvements:

- Architected a modular, LLM-based **AI Agent Platform** optimizing model allocation for cost and performance.
- Drove **context management pipeline redesign**, improving top-5 retrieval accuracy from 80%→+90% and increasing “Resolved Inquiries” by 3%.
- Led ML efforts for the **Playbooks Framework**, achieving <1% adherence error and enhancing resolution rates.
- Spearheading research on **testing methodologies, performance evaluation, and AI explainability**.

LLMs, Natural Language Processing, Generative AI. | Python, PyTorch,

Ada Support LTD / Sr. Machine Learning Scientist - R&D

[<https://www.ada.cx/>]

August 2021 - Feb 2024, Toronto [Remote]

Leading Generative AI efforts through Applied Research. Worked end to end on conception, design and implementation.

- Designed and implemented **Generative Reply** and **Generative Action** systems integrating retrieval, moderation, and query rewriting.
- Developed **Autolaunch**, a declarative chatbot creation framework, and **ATS (Automatic Training Suggestions)** – both patented.
- Co-inventor on **3 U.S. patents** in Conversational AI and automated training systems.
- Drove Ada's transition to hybrid and generative chatbot solutions leveraging fine-tuned LLMs.

LLMS, Natural Language Processing, Generative AI. | Python, PyTorch

Omilia LTD / Sr. Machine Learning Specialist - R&D

[<https://omilia.com/>]

February 2020 - August 2021, Athens [Remote]

Designed and implemented machine learning models for Voice Biometrics, Automated Speech Recognition, and Natural Language Processing. Also, involved in serving as well as maintaining the models.

- Designed and deployed neural models for **Voice Biometrics, Speech Recognition, and Emotion Recognition.**
- Led applied research on **Anti-Spoofing, Diarization, and Transformer-based architectures.**

Deep Neural Networks, Probabilistic Neural Models, Natural Language Processing, Voice Biometrics, Diarization. | Python, C++, PyTorch, Tensorflow

Linked Business / Machine Learning Consultant

[<https://www.linkedbusiness.eu/>]

April 2020 - April 2022, Athens [Remote]

Linked Business is a FinTech company that aggregates official business data from government registries to deliver B2B intelligence, sales leads, and KYC services. Served as a trusted advisor on AI, ML, and text-mining strategies, translating academic research and emerging technologies into production-ready solutions.

- Designed and prototyped algorithms for **entity recognition, lead scoring, and automated data enrichment.**
- Created and led collaborations of cross-functional teams to embed models into production pipelines, ensuring accuracy and scalability.
- Led rapid proof-of-concept initiatives to validate technical feasibility and business value, shaping the company's data-driven roadmap.

Python, scikit-learn, spaCy, FastAPI, MongoDB, SQL, REST APIs

Curation Zone LTD / Data Scientist

[<https://www.curationzone.com/>]

April 2019 - February 2020, London [Remote]

Working on **AI technologies** to identify the World's best filmmakers.

- **Built deep learning models to identify top global filmmakers using BERT, ELMo, and LSTMs.**
- **Deployed ML pipelines for scoring, recommendation, and data**

management.

Deep Neural Networks, Natural Language Processing, Scoring and Data Management. | Python, BERT, ELMO, LSTMs, TensorFlow, RESTful API, MongoDB

Stellanovus LTD / Lead AI Developer

[<https://www.stellanovus.com/>]

October 2018 - April 2019, Republic of Ireland [Remote]

Working on a **digital marketing platform** [<http://www.ainu.ai/>],

- Led AI development for AINU.ai, a digital marketing platform powered by NLP and deep learning.
- Focused on building and scaling neural architectures for text understanding and automation.

Deep Neural Networks, Natural Language Processing. | Python, LSTMs, TensorFlow, RESTful API

i-DAT / AI & Machine Learning Scientist

[<http://i-dat.org/>]

September 2017 - September 2018, UK [Remote]

Working on a **chatbot** engine with text comprehension.

- Developed a chatbot engine for text comprehension and dialogue management.
- Implemented LSTM-based NLU/NLG modules using Keras, Rasa, and DialogFlow.

Neural Networks, Natural Language Processing. | Python, LSTMs, Keras, DialogFlow, Rasa

University of Naples, Federico II / Research Scientist

[<http://www.nac.unina.it/nac/>]

June 2017 - September 2017, ITALY

Researcher Position under the supervision of prof. Davide Marocco. Working on a **Generative Adversarial Architecture** based on Echo State Networks, with applications to music generation. | Python, LSTMs, Echo State Networks, Theano

Plymouth University / Research Assistant

2015- 2017, UK

2 Projects | Research and Development of **Neural Architectures** for (a) **Sentiment Analysis** in Tweets and **Natural Language Processing** (b) Explanation of Functional Disorders | Python, Tensorflow, RNNs

3 Laboratories | Teaching MSc students "Robotics and Control", BSc students "Cross-platform application development in C++" and "Parallel and Distributed Programming" | CUDA, C, C++, Industrial Robotics

VisualPulp / Web App Developer

Nov 2013 -Feb 2014, GREECE

Worked in the implementation of the **Front and Back end** of a scratch (game) engine for an online casino. My contribution to the project was spread across all the levels of implementation, **game-logic, game engine, interface** and **graphical environment**, and, last but not least, in the **security** aspects of the information exchange. | **Javascript, Angular, MongoDB, Bootstrap**

Education

University of Plymouth / Ph.D. in Computer Science, Artificial Intelligence and Robotics

2014 - 2017, UK

Thesis titled "*Adaptive Neural Architectures For Intuitive Robot Control*"

Thesis online, <https://pearl.plymouth.ac.uk/handle/10026.1/9998>

Project Page, <https://www.cognovo.eu/project-25>

Aristotle University of Thessaloniki / BSc in Informatics

2008- 2013, GREECE

Degree in Informatics with a speciality in Information Systems, Expert Systems, Database Management Systems, Grid Computing, Information Retrieval.

Thesis titled "*Reinforcement Learning in Robotics*"

Thesis online, <http://ikee.lib.auth.gr/record/132731/?ln=en>

International Publications

- Melidis, C., & Marocco, D. (2019). **Effective Behavioural Dynamic Coupling through Echo State Networks**. Applied Sciences, 9(7), 1300.
- Melidis, C., Denham, S. L., & Hyland, M. E. (2017). **A test of the adaptive network explanation of functional disorders using a machine learning analysis of symptoms**. Biosystems.
- Melidis, C., Iizuka, H. & Marocco, D., "**Intuitive control of mobile robots: an architecture for autonomous adaptive dynamic behaviour integration**", Cognitive Processing, Springer, (2017). doi:10.1007/s10339-017-0818-5
- C. Melidis and D. Marocco, "**KURE: Kinematic universal remote interface a human centred remote robot control paradigm**," 2016 IEEE International Conference on Systems, Man, and Cybernetics (SMC), Budapest, 2016, pp. 003130-003135.
- C. Melidis and D. Marocco, "**KURE: a Two-Way Adaptive System for Intuitive Robot Control**", 2016, Workshop on Behavior Adaptation, Interaction and Learning for Assistive Robotics, IEEE RO-MAN 2016, NYC, USA
- C. Melidis and D. Marocco, "**A Human Centric Approach to Robotic Control**", 2015 IEEE International Conference on Systems, Man, and Cybernetics, Kowloon, 2015, pp. 2441-2446. Doi: 10.1109/SMC.2015.427
- Melidis C., Marocco D. (2015) **An Exploration on Intuitive Interfaces for Robot Control Based on Self Organisation**. In: Headleand C., Teahan W., Ap Cenydd L. (eds) Artificial Life and Intelligent Agents. ALIA 2014. Communications in Computer and Information Science, vol 519. Springer, Cham

Patents

- [Systems and methods for generating a chatbot](#)
[US 11676044B1](#) Arnon Mazza, Christos Melidis Ada Support Inc.
Priority 2022-08-16 • Filed 2022-08-16 • Granted 2023-06-13 • Published 2023-06-13
- [Systems and methods for generating automatic training suggestions](#)
[US 20230297887A1](#) Armand Silviu Gurgu, Christos Melidis Ada Support Inc.
Filed 2022-12-15 • Published 2023-09-21

Conference Presentations

- "KURE: Kinematic universal remote interface a human centred remote robot control paradigm," 2016 **IEEE International Conference on Systems, Man, and Cybernetics (SMC)**, Budapest, Hungary
- "KURE: a Two-Way Adaptive System for Intuitive Robot Control", 2016, Workshop on Behavior Adaptation, Interaction and Learning for Assistive Robotics, **IEEE RO-MAN 2016**, NYC, USA
- "A Human Centric Approach to Robotic Control," 2015 **IEEE International Conference on Systems, Man, and Cybernetics**, Kowloon, Hong Kong
- An Exploration on Intuitive Interfaces for Robot Control Based on Self Organisation. **Artificial Life and Intelligent Agents. ALIA 2014**. Bangor, Wales, UK

Volunteer Work

Active Member of **Google Developers Group** Thessaloniki

Organiser of,

“**Collaboratoire**”, Summer School

[<https://www.cognovo.eu/events/collaboratoire.php>]

“**Build your own AI**”, Meetup series

6 University Projects | [LinkedIn](#)

7 International Publications | [ResearchGate](#)

3 Organisations visited | [LinkedIn](#)

3 Languages | Greek, English, German