

GEORGIOS MARGARITIS

89 Auburn Park, Cambridge, MA | geomar@mit.edu | +1 (857)9996702 | GitHub: github.com/margaor | website: george-margaritis.com

EDUCATION

Massachusetts Institute of Technology,

2021-Present

PhD Candidate in Operations Research

- **GPA 4.9/5.0:** Quantitative methods for Natural Language Processing, Machine Learning under a modern Optimization Lens, Linear Optimization, Integer Optimization, Statistical Learning, Fundamentals of Probability, Robust Optimization, Nonlinear Optimization

Technical University of Crete,

2016-2021

Diploma & Integrated M.Eng. in Electrical & Computer Engineering

- **GPA 9.9/10** (53 courses, 300 ECTS)
- **Valedictorian** - Highest diploma degree in the school's **30-year history**.

PROFESSIONAL & RESEARCH EXPERIENCE

Google,

June-August 2025

ML Intern – Google Cloud AI

- Trained 8+ recommendation models using state-of-the-art LLMs and supervised finetuning.
- Compared LLM-based recommenders against traditional models & production systems.
- Implemented methods that improved cold-start recommendation performance by **10+%**.

NETFLIX,

May-August 2024






ML Research Engineer Intern – Recommendation Algorithms

- Worked on improving Netflix's core recommendation algorithm.
- Implemented a multimodal recommendation pipeline using state-of-the-art LLMs, Vision Transformers and Contrastive Learning.
- Scaled the pipeline to production-size data and showed **3-5%** improvement in recommendation quality.

Massachusetts Institute of Technology,

2021-Present

Graduate Researcher – Advisor: Prof. D. Bertsimas 

- **Multimodal Healthcare ML** : Built multimodal LLM pipeline that predicts 100+ health variables with 98%+ accuracy; validated in 3 hospitals & aiming deployment in 97% of U.S. cardiac programs.
- **RAG for Clinical Prediction** : Created multimodal RAG pipeline that improves diagnostic AUC by up to 19% and enhances clinical interpretability (*revision in npj Digital Medicine, IF: 15.1*).
- **Multimodal Embedding Adaptation** : Proposed contrastive learning method for low-cost domain adaptation of multimodal embeddings, achieving strong gains in real-world hospital data (*preprint*).
- **ML for Optimization** : Developed non-convex solver using ML surrogates + Mixed Integer Optimization that outperforms BARON/Gurobi in various problems (*Journal of Global Optimization*).
- **LLMs for Robust Optimization** : Used in-context learning and LLMs to auto-formulate and solve Robust and Adaptive Optimization Problems (*preprint*).

an-edtiorial.com,


2021 – 2023


ML/Software Engineer & CTO,

- Created Deep Learning pipeline for finding similar products from images and text (scales to 300k products).
- Implemented a personalized multimodal product recommendation system using Computer Vision & NLP.
- Full-stack development of the website, including product recommendations, product pages, search & multi-attribute filtering on 300k+ products.

Technical University of Crete,

2020-2021

Undergraduate Researcher – Supervisor: Prof. Minos Garofalakis 

- **Diploma Thesis:** “Differentially-Private Data Synthesis using Variational Autoencoders” .
- Designed a privacy-preserving data synthesis framework using VAEs, Federated Learning & Differential Privacy; enables hospitals to jointly release their data while preserving patient privacy.

Foundation of Research and Technology Hellas,

June-Sept 2019

Research Intern – Computer Vision & Robotics – Supervisor: Prof. Panos Trachanias 

- Applied dynamic motion models & reinforcement learning for robotic arm imitation of human actions.
- Implemented in Python/C++/ROS in collaboration with Honda Research Japan.

GUESTFLIP P.C.

Dec 2017 – Feb 2019

ML/Software Engineer & Co-Founder,

- Built NLP system that analyzes hotel reviews (sentiment + complaint detection).
- Developed full-stack web platform with automated response suggestions to customer complaints.

SELECT HONORS – ACHIEVMENTS - ACTIVITIES

- Award from the **MIT ORC** for the **best performing NLP model** in an MIT competition (2022).
- Award & scholarship from the **Greek Government** for **highest Diploma GPA** in my school (2021).
- Place in the top **1.2%** of teams in the international programming competition “**Google Hashcode**” (2020).
- Place **125** among **3,700** teams in the international programming marathon “**IEEEExtreme**” (2020).
- Awards in the Greek national student competitions of **Chemistry** and **Physics** (2016).
- Award for ranking among **top 15** students in the **Greek National Olympiad of Informatics**.
- **Third place** in Greece in the Team Chess Championship (2016).
- Qualification in the last national round of the **European Union Science Olympiad (EUSO)** (2014).
- Qualification and participation in the **28th National Mathematical Olympiad “Archimedes”** (2012).

ADDITIONAL INFORMATION

- **Programming Languages:** Python, Julia, Javascript, MATLAB, C, C++, SQL, PHP, Scala
- **Tools & Frameworks:** Tensorflow, Pytorch, JuMP, Spark
- **Areas of Expertise:** Machine Learning, Deep Learning, NLP, Optimization, Recommendation Systems, Large Language Models, Software Engineering
- **Volunteering/Leadership:** President of the Hellenic Student Association of MIT, organizing cultural events attended by **100s** of people (2023).