

Dimitrios Kakouris

ML Engineer/Software Engineer




General Info

Dimitrios Kakouris
Country: Greece
Born in 2001 in Athens, Greece

Interests

Software Development/Machine Learning/ Open Source Development/Distributed Systems/Running/Biking

Github Portfolio

 DimitriosKakouris

Contact Info

+306978519166

@ dimitrioskakouris01@gmail.com

Languages

- Python/Pytorch
- Javascript
- Bash
- Go
- C++/Cuda

Spoken Languages

- English C2
- Greek (Native)

SHORT RESUMÉ

2019–2024

Bachelor of Engineering ECE NTUA

UNDERGRADUATE · NTUA, Athens Greece 📍

Specialized in Computer Engineering, Software and Artificial Intelligence during my university years. **Grade: 8.6/10**



2023–2023

Software Engineer at CoreNetworks

FRONTEND / BACKEND DEVELOPER · Marousi, Athens 📍

Developed the payment logging system for a CoreNetworks customer using Django framework for backend/frontend development with SQL database schema.

2024–2024

Master of Engineering ECE NTUA

GRADUATE · NTUA, Athens Greece 📍

Research Diploma thesis on Diffusion Models - Generative AI. Title: "Training-free Style Transfer in Diffusion Models" using Stable Diffusion 2.1 with diffusers library, implementing Attention Key Injection and Prompt-guided noise initialization for artistically accurate image generation. **Grade: 10/10**



ABOUT ME

My studies at ECE NTUA offered me great exposure and experience to AI/Distributed systems and Software Engineering. I have extensive experience implementing Machine Learning pipeline solutions and also creating novel solutions to problems of current implementations just as I did in my diploma thesis, in which, I Collaborated with AILS NTUA researchers to develop a novel style transfer pipeline for AI image generation using Stable Diffusion framework. In the domain of Agentic AI and LLMs, I created pdf-chat, an intelligent question-answering system that combines state-of-the-art LLMs with RAG frameworks like LangChain and vector databases, enabling users to chat with LLMs with document extracted knowledge. Built a blockchain network from scratch implementing Proof-of-Stake consensus algorithm, demonstrating deep understanding of cryptocurrency and peer-to-peer network during my studies. On the software engineering side, I did a fullstack developer summer internship at CoreNetworks at which I developed a payment logging system with the Django framework using an SQL DB. I also have Fullstack experience with Flask and React framework.

Through these projects and especially my internship I enhanced my multitasking abilities and the ability to work under pressure. I successfully collaborated with cross-functional teams in both research and industry environments.

PROJECTS

- **StyleMDiffusion:** A training-free approach to prompted and artistically accurate image generation, via Attention Key Injection and Prompt-guided noise initialization using the Pytorch framework. <https://github.com/DimitriosKakouris/StyleMDiffusion>
- **ntua-BlockChat:** BlockChat is a project for the NTUA Distributed Systems Course. It is a dummy Ethereum type of cryptocurrency utilizing Proof Of Stake Consensus Algorithm. <https://github.com/DimitriosKakouris/ntua-BlockChat>
- **ntua-flix:** Ntuaflix is a movie database platform that allows users to browse movies and rate them, It uses NoSQL database(MongoDB) and MovieDB API, Flask framework for the back-end and React for the front-end. <https://github.com/DimitriosKakouris/ntua-flix>
- **pdf-chat:** Document QA System built with the Langchain framework (RAG framework) alongside with the vector database (ChromaDB) that utilizes AWS Bedrock models (such as Anthropic's Claude) and the Amazon Titan embeddings through its API, chat with your documents in an intelligent way. <https://github.com/DimitriosKakouris/pdf-chat>
- **parallel-systems-ntua:** Parallel Processing Systems Implementations in OpenMP, CUDA and MPI <https://github.com/DimitriosKakouris/parallel-systems-ntua>