

Konstantinos Malonas

Athens-Greece, Ethnarchou Makariou, Nea Ionia 142 33

(+30) 690-8936557

KonstantinosMalonas@outlook.com  

Data Engineer interested in the theoretical and practical aspects of computer science, with focus on data engineering and machine learning. Postgraduate of Advanced Software Engineering with Data management specialization from National and Kapodistrian University of Athens

PROFESSIONAL EXPERIENCE

European Dynamics

Athens, Marousi 151 25

Data Engineer

May 2023–Present

- **Summary:** Design and operate resilient ETL/ELT pipelines in Azure Databricks (PySpark), write high-performance SQL and PL/SQL across Oracle & PostgreSQL, and build insight-driven Power BI dashboards
- **Skills:** Azure Databricks, PySpark, SQL, Oracle, PostgreSQL, ETL/ELT, EDA, PowerBI

Python-SQL Tutor

Athens, Remote

January 2020–Present

- **Summary:** Teaching Python, SQL to highschool and university students as a freelancer
- **Skills:** Python, Oracle, PostgreSQL, PL/SQL

Divimah

Athens, Remote

Intern Machine Learning Engineer

June 2022–August 2022

- **Summary:** Built, fine-tuned, and evaluated ML models to improve trip planning and itinerary organization, enhancing user experience end-to-end
- **Skills:** Python, Pandas, NumPy, Tensorflow, PyTorch, scikit-learn, SciPy

CoreNetworks

Athens, Marousi 151 25

Python Developer Intern

March 2021–July 2021

- **Summary:** Implemented site utilities and features, resolved bugs, and improved overall usability.
- **Skills:** Python, DJANGO, SQL, CSS, HTML, JavaScript

Hotel Rio Athens

Athens, Metaxourgeio 104 36

Intern Field Engineer

August 2015–December 2015

- **Summary:** Four month, network equipment installation internship

Athena Facilities Management

Athens

Cleaner

September 2014–December 2016

- **Summary:** Worked alongside my parents at their facilities management company

EDUCATION

University of Athens

Athens, Zografou 161 22

Masters of Advanced Computer and Software Engineering

September 2022–October 2024

- **Modules:**
 - Big Data
 - SPARQL
 - SQL
 - Advanced AI and Logic
 - Software Engineering Principles (Java)
 - Software Architecture (Java)
 - Software Engineering Principles (Python)

• **Modules:**

- Python
- Mathematical analysis 1 & 2
- Introduction to Artificial Intelligence
- MySql
- C++ programming
- C programming
- Discrete mathematics
- Probability & Statistics
- Java programming

PUBLICATIONS

Accessibility of Medical Information to a Broader User Group:

Publisher: Springer, Cham

The “Athena” Medical ChatBot

Authors: Konstantinos Malonas, Christina Alexandris

Published: 28 May 2025

- **Summary:** Peer-reviewed chapter introducing ATHENA, a hybrid medical dialog system that combines a guided spoken interface, an interactive probabilistic symptom checker, and a RAG-based chatbot to deliver accessible, reliable health information. Emphasis on usability for older/non-technical users, multilingual adaptation, and privacy-preserving design.

CERTIFICATIONS

Microsoft Certified: Azure AI Engineer Associate

Credential ID: E332DA03D4EE1A0C

Issued June 2025 – Expires June 2026

Issuer: Microsoft

Databricks Certified Data Engineer Professional

Credential ID: 142446779

Issued May 2025 – Expires May 2027

Issuer: Databricks

Microsoft Certified: Azure Data Engineer Associate

Credential ID: A9B6F83F48C786A0

Issued March 2025

Issuer: Microsoft

Microsoft Certified: Azure Fundamentals

Credential ID: A462C444162E06D2

Issued November 2024

Issuer: Microsoft

Databricks Certified Data Engineer Associate

Credential ID: 100945362

Issued April 2024 – Expires April 2026

Issuer: Databricks

Data Scientist with Python

Issued June 2022

Issuer: DataCamp

Python and Django Full Stack Web Developer Bootcamp

Issued September 2021

Issuer: Udemy

Machine Learning with Python

Issued November 2020

Issuer: Coursera

Advanced Relational Database and SQL

Issued October 2020

Issuer: Coursera

Intermediate Relational Database and SQL

Issued September 2020

Issuer: Coursera

PROJECTS

Learn Procedural SQL by Building a Chess Game in PostgreSQL

July 2025 – August 2025

- **Summary:** Designed and published a hands-on course on UdeMy that teaches Procedural SQL by guiding learners to build a functional chess game using PL/pgSQL and Python. Covers topics such as stored procedures, conditional logic, for-loops, data structures, and game logic implementation inside PostgreSQL

Athena Medical Chatbot

July 2024 – December 2024

- **Summary:** A medical chatbot utilizing Retrieval-Augmented Generation (RAG) architecture, powered by GPT-3.5 Turbo, and developed using Python/Django. This project was created as part of my Masters thesis at the University of Athens, aiming to provide accurate and efficient medical information retrieval and guidance

Voice-Controlled Mouse Navigation Application

May 2023 – June 2023

- **Summary:** This project introduces a Voice-Controlled Mouse Navigation System, allowing users to control their mouse, interact with search engines, and navigate websites using only voice commands. The application is designed to assist users with accessibility needs and those seeking hands-free interaction with computers and the internet. The system supports voice-based mouse navigation, text input, and web interaction

Insomnia Web Crawler With Review Quality Scores

February 2023 – March 2023

- **Summary:** The Insomnia Crawler is a Python-based web scraping tool designed to extract detailed information about products, sellers, and reviews from the popular Greek e-commerce platform, insomnia.gr. This crawler not only automates data collection but also analyzes and calculates review quality scores, providing a deeper understanding of both sellers and their reviewers. It is ideal for assessing seller reliability and conducting product research

Big Data - Key Value Store With Trie Structure

October 2022 – December 2022

- **Summary:** Developed a distributed, fault-tolerant Key-Value Store using a Trie data structure to manage nested key-value pairs efficiently. The project included implementing a custom data generation program for synthetic datasets, a KV client for handling user queries (GET, DELETE, QUERY), and a KV server for in-memory data storage and computation. Advanced functionality like replication, arithmetic operations on queried values, and support for trigonometric and logarithmic functions were integrated. The system was built with scalability and fault tolerance, ensuring consistent performance even with server failures

KNN implementation for predicting breast cancer (Python)

January 2021 – January 2021

- **Summary:** KNN model implemented in Python that makes predictions if a tumor is malignant or benign

Loan repayment prediction (Python)

November 2020 – November 2020

- **Summary:** Prediction if a loan case will be paid off or not with predictive algorithms

Analyzing US economic data and building a dashboard (Python)

October 2020 – October 2020

- **Summary:** Examination of GDP with Python and how its changes impact the unemployment rate