

Constantinos Romantzis

Experienced Data Scientist / Engineer



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- Cyprus
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CERTIFICATES

- NVIDIA Deep Learning Institute: Building Transformer-Based Natural Language Processing Applications
- NVIDIA Deep Learning Institute: Fundamentals of Deep Learning
- Insights from Data with BigQuery

TOOLS

- Programming Language: Python
- Programming Languages: Rust, C++, R, Matlab
- Libraries: NumPy, Pandas, scikit-learn, SciPy, spaCy, Tensorflow, Keras, Matplotlib, Seaborn
- Frameworks: Docker, Azure, Rasa, Flask, Django, Apache Spark
- Database Management (SQL): T-SQL, MariaDB, MySQL

PROFILE

Data Scientist // Data Engineer with demonstrated experience in handling sensitive and vital tasks both as a team member and as a team leader. A resilient, adaptive, quick-learner and avid problem solver who has developed a strong foundation in both STEM and Finance fields as a result of years of formal education and extensive independent studying and research.

EDUCATION

- Master of Science in Data Science, University of Nicosia**
February 2022 – December 2023 | Nicosia, Cyprus
Modules: Data Programming, Mathematics for Data Science, Managing and Visualizing Data, Machine Learning, Business Intelligence, Research Seminars and Methodology, Project in Data Science, Thesis.
 - Literature Review: Multimodal Conversational Agents: A Survey
 - Project: A Conversational Agent for Nutritional Coaching
 - Thesis: A Three Step Methodology For The Identification of Bias in LLM ResponsesHonours: Summa Cum Laude
- Bachelor of Science in Accounting & Finance, University of Nicosia**
September 2014 – December 2018 | Nicosia, Cyprus
Modules include: Finite Maths with Applied Calculus, Statistics 1 & 2, Algebra, Microeconomics, Macroeconomics
- Lyceum Diploma, A' Lykeio Ethnarxi Makariou Paphou**
September 2011 – June 2014 | Paphos, Cyprus
Grade: 18.45/20
STEM path (Physics, Mathematics, Computers)
Activities & Societies: STEM Society

WORK EXPERIENCE

- Data Analytics Engineer, Bank of Cyprus**
March 2024 – present
 - Developed a CNN-based ID extraction system for unstructured documents using Python, enhancing document processing accuracy.
 - Engineered and maintained the document index for a chatbot application hosted on Azure, with Docker-based image management.
 - Designed an automated LEI data pipeline using SQL Server and API integrations to regularly update client legal entity information.
 - Built and deployed custom data models and API-driven solutions using Python and Azure SDK for enterprise analytics workflows.
 - Created and managed enterprise reports in Visual Studio and SQL Server, delivering insights to cross-functional teams.
 - Application owner of multiple SQL Server instances, responsible for performance, security, and optimization across projects.

INTERESTS

Developments & Research in the
STEM fields | Home Automation |
Blood Donation & Charity |
Cooking | Nature Walking

VOLUNTEERING

AI and Data Science Day II at UNIC, University of Nicosia

2024

Presented presentations on
Conversational Agents as a whole, AI,
ML & Large Language Models (LLMs)
as well as the Bias Detector in LLMs
& Dietbot projects to a live audience
of consisting of High School students
and interested parties alike giving
them the opportunity to interact with
the agents and test their capabilities.

AI and Data Science Day at UNIC, University of Nicosia

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interact with the agent and test its
capabilities.

Cyprus Mediterranean Science Festival

2017

Assisted the Life Sciences
Department of the University of
Nicosia in their workshops.

Annual Small Scale Food Drive

Every year a small-scale Food Drive is
organised where the donations are
spread amongst a handful of families
or welfare organisations that may
need them.

Small Scale Blood Drives

Every 3 months a small-scale Blood
Drive is organised to help with the
ever-increasing need of blood. (Blood
Type: O+, Target: to donate 4 times a
year when able to.)

Stray Animal Welfare

Stray Cat and/or Dog populations are
regularly fed and checked on.

Currently trying to arrange the
provision of voluntary services with
P.A.W.S and the Nicosia Dog Shelter.

Lab Member – AI Researcher – Conversational Agents, UNic – Artificial Intelligence Lab (AILab)

July 2022 – present

Laboratory Work:

- Main Duties:
Working and/or providing assistance in various AI Lab projects.
Take part in weekly meetings to discuss and present Research.

- Areas of specialisation:
Conversational Agents, Machine Learning, Multimodal
Augmentation, Large Language Models (LLMs).

Funded Project Work:

- Alameda, Horizon 2020:
Contributed to various machine learning and Python-based
tasks related to sentiment analysis and research within the
Horizon 2020-funded ALAMEDA project and participated in
the 2023 Frontiers in Digital Health conference as part of
project activities, gaining exposure to advances in digital health
technologies.

Work - Study Scholarship, University of Nicosia

November 2022 – June 2024

- 20% Work - Study Scholarship: Tasked with undertaking
work assigned by the University. This includes work
performed in the Artificial Intelligence Laboratory.

Head of Audit, CCP Accountants Ltd

January 2020 – March 2024

- Main duties:
Performed the Audit of large, higher risk clients from the
engagement until sign off using CaseWare, custom, self-
created, Python Scripts to streamline the data extraction
procedures and various, updated or fully self-created, Excel
sheets that include statistics and analytics as well as graphical
representations of the models used to better assess the
financial position of said higher risk clients. Responsible for the
review and finalisation of the audit team's Audits.

- Additional Contributions:
Delivered a fully automated method of performing client KYC,
in line with the AML standards in place, using python scripts
and APIs.

SKILLS

Research

Performing research and writing Articles and Papers

Adaptability

Able to adapt on the go in order to perform at the necessary
level no matter the circumstances.

Management

Leading a team, allocating work and delegating as needed.

Quick Learner

Able to constantly keep learning new things and applying
them.

LANGUAGES

Greek

Native



English

Native & GCSE: A



PUBLICATIONS

Subjectivity, Polarity and the Aspect of Time in the Evolution of Crowd-Sourced Biographies, Springer

Conducted a study on the evolution of linguistic subjectivity and sentiment in crowd-sourced Wikipedia biographies. Measured subjectivity using Mean Abstraction Level and introduced a new Polarity Density metric for sentiment analysis over time. Analyzed differences across gender and personality categories, finding increased subjectivity and sentimental charge in female biographies throughout their edit history.

PROJECTS

AI Lab: Dietbot, Supervisor: Ioannis Katakis

July 2022 – June 2024

Developing (Full-Stack) a Conversational Agent (CA) that leverages various Machine Learning models and knowledge databases to assist users with their day-to-day nutritional needs and will also be able to be used by Medical Professionals as a tool to provide better intervention to their patients.

*Early stages of this were used as the Capstone project for the MSc in Data Science.

Business Intelligence: Customer Lifetime Value Prediction. 2023

Created a model, using real-world data, that can predict a Customer's Customer Lifetime Value (CLV) with high Accuracy and Precision. In the process an analysis was performed that highlighted some of the company's strengths and weaknesses.

Data Types:

Timeseries

Discrete

Continuous

Categorical

Drug Discovery, Independent

January 2020 – July 2022

Worked on various projects in the fields of Bioinformatics and Drug Discovery as part of the self-learning journey before enrolling into the MSc in Data Science. After the initial learning stage independent research on small projects dealing with AI assisted Drug Discovery was performed.

AWARDS

Bank of Cyprus - Data Science Scholarship

2023

Received the Bank of Cyprus scholarship for the last semester of the MSc in Data Science and a 2-year contract upon graduation.

Dean's List - MSc in Data Science, University of Nicosia

Made the Dean's List for exceptional academic performance during the Spring 2023 & Fall 2023 Semesters.

REFERENCES

Dr Athena Stassopoulou, *Professor*, University of Nicosia
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Dr Ioannis Katakis, *Associate Professor*, University of Nicosia
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