Eleftherios Charteros

SOFTWARE ENGINEER - DATA SCIENTIST

 harteros.github.io | harteros | in lefteris-charteros

Experience

Data Scientist
PwC GREECE

Athens, Greece
October 2021 - Present

- Developed a full-stack web application using Next.js and Django Rest Framework for a Greek Public Service, implementing a scalable microservice architecture, enhancing system performance and maintainability.
- Redesigned the backend for the National Social Security Agency application to use REST APIs developed with Django Rest Framework, reducing load time by over 75% and increasing efficiency and usability.
- Implemented a BERT-based event-driven chatbot system with Django for the banking domain and the National Social Security Agency, reducing response times and boosting user satisfaction.
- Forecasted COVID-19 hospitalizations using LSTM-based time series models, aiding health authorities in resource planning and management during the pandemic.
- Designed a Dockerized monitoring and analytics system for multiple applications, enabling proactive identification and resolution of performance and availability issues.

Software Engineer
GREEK ARMY

Rhodes, Greece
Nov 2020 - Aug 2021

- Automated operations and streamlined workflows for the Rhodes Officers Club by developing an online ordering and booking management system (lethrodou.gr), increasing efficiency and profitability.

Research Assistant
ATHENS UNIVERSITY OF ECONOMICS AND BUSINESS

Athens, Greece
Oct 2019 - Oct 2020

- Developed a novel solution for model training in Federated Learning which achieved up to 5% higher accuracy on Non-IID data on early communication rounds by proposing a layer-wise regularization to the loss function.

Education

Athens University of Economics and Business
MSc IN COMPUTER SCIENCE AND INFORMATICS, GPA: 9.77/10 (EXCELLENT)

Athens, Greece
Oct 2019 - Oct 2020

- Specialization in Artificial Intelligence, Machine Learning, and Information Systems.

Athens University of Economics and Business
BSc IN COMPUTER SCIENCE AND INFORMATICS, GPA: 8.88/10 (EXCELLENT)

Athens, Greece
Oct 2015 - Jun 2019

- Specialization in Artificial Intelligence, Machine Learning, Databases, Knowledge Management, Information Systems, and Information Security.

Certificates

Microsoft

- Azure Fundamentals, Azure Data Fundamentals, Azure AI Fundamentals
- Azure Data Scientist Associate, Azure Data Engineer Associate

Research and Publications

Athens University of Economics and Business *Athens, Greece*
LAY IMPORTANCE ON THE LAYER: FEDERATED LEARNING FOR NON-IID DATA WITH LAYER-BASED REGULARIZATION *Mar 2023*

- MSc Thesis (Accepted in IEEE FOGML 2023).

Athens University of Economics and Business *Athens, Greece*
EDGE COMPUTING FOR HAVING AN EDGE ON CANCER TREATMENT: A MOBILE APP FOR BREAST IMAGE ANALYSIS *Feb 2020*

- Publication at IEEE, IoT-Health workshop.

Skills

Languages
Python, R, Java, Javascript, Typescript, HTML, CSS

Software & Tools
Pytorch, Keras, Tensorflow, Flask, Django, Next.js, Docker, Github, Azure DevOps

Soft Skills
Goal oriented, Problem solving, Organization and time management, Adaptability and flexibility

Projects

For more projects and details see: github.com/harteros

Food Ordering and Room Reservation System with Angular *2021*

- Web application with Angular and Firebase for food orders, haircut reservations and booking system for Rhodes Greek Army Officers Club (lethrodou.gr)

Sentiment Analysis with Neural Networks *2020*

- Sentiment analysis with Multilayer Perceptrons, Recurrent Neural Networks and Stacked Convolutional Neural Networks on the Twitter Sentiment Analysis Dataset.

Image Classification with Convolutional Neural Networks *2020*

- Experiments with multiple Convolutional Neural Network architectures and variants written in Tensorflow for classifying Fahsion-MNIST images.

Air Traffic Classification *2019*

- A feature engineering and machine learning task for classifying the number of passengers in flights.

Multilayer Perceptron, Expectation Maximization Algorithms *2019*

- A simple Multilayer Perceptron written from scratch in Python for classifying MNIST and CIFAR-10 datasets.
- The Expectation-Maximization algorithm written from scratch in Python for image compression and reconstruction.

Collaborative Filtering Recommendation System with Android Application *2018*

- A recommendation system that suggests to its users the best points of interest based on their check-ins.

A-Star, Naive Bayes, ID3, AdaBoost Algorithms *2018*

- Machine Learning algorithms written from scratch in Java.

Languages

Greek, Hungarian
Mother Tongue

English *2013*
Certificate of Proficiency in English, University of Michigan.