Ioannis Pierros

Email address: ipierros@csd.auth.gr

Address: Intelligence Systems Lab, School of Informatics, Aristotle University, 54636, Thessaloniki, Greece (Work)

EDUCATION AND TRAINING

11/06/2020 – CURRENT Thessaloniki, Greece
PHD CANDIDATE School of Informatics, Aristotle University

Research subject: Machine Learning and Deep Learning
Subdomain: Time series forcasting with big data, applied in the Energy and Retail sectors

Address 54124, Thessaloniki, Greece ∣ **Website** intelligence.csd.auth.gr/

11/10/2020 – 28/02/2022 Thessaloniki, Greece
MSC IN ARTIFICIAL INTELLIGENCE Aristotle University

- Machine Learning
- Computational Intelligence - Statistical Learning
- Intelligent Systems Programming
- Deep Learning

Address 54124, Thessaloniki, Greece ∣ **Website** https://ai.csd.auth.gr/en/ ∣ **Final grade** 9.78/10 ∣

Thesis Time Series Forecasting for Energy Demand

10/08/2013 – 19/11/2018 Thessaloniki, Greece
BSC IN COMPUTER SCIENCE School of Informatics, Aristotle University

Address 54124, Thessaloniki, Greece ∣ **Website** http://www.csd.auth.gr/en/ ∣ **Final grade** 8.43/10 ∣

Thesis Extraction of funding data from medical publications

12/2014 – 06/2015 Greece
ANDROID STUDY JAMS Google Developers Group, Thessaloniki Chapter

- Extensive and demanding courses on Android programming principles
- Developed a game with asynchronous bluetooth connectivity

12/2015 – 06/2016 Västerås, Sweden
ERASMUS (BSC) Mälardalen University

- Intelligent Autonomous Systems
- Software Development for Real-time Systems
- Computer Networks I & II

Address 72220, Västerås, Sweden ∣ **Website** https://www.mdh.se/

WORK EXPERIENCE

15/04/2022 – 10/12/2023 Thessaloniki, Greece
MACHINE LEARNING RESEARCHER ARISTOTLE UNIVERSITY OF THESSALONIKI

Research and implementation of Machine Learning models for short-term forecasting of water consumption
- Time series clustering
- Transfer Learning
- API end-points

08/09/2021 – 26/02/2022 Thessaloniki, Greece
MACHINE LEARNING RESEARCHER MASOUTIS

- Data analysis of retail data to discover their correlation to sales
- Design of Neural Network architectures to forecast the short-term retail demand
- Multi-processing, logging and continuous performance evaluation

Business or Sector Wholesale and retail trade; repair of motor vehicles and motorcycles

14/09/2018 – 30/10/2020 Nice, France
SOFTWARE ENGINEER AMADEUS (HOTEL IT), AKKA TECHNOLOGIES

- Core c++ developer part of Agile team
- Code unit tests and non-regression tests to ensure functionality
- Aggregation of new fields for time efficiency
- Technical restructure of the codebase for decoupling and faster compilation

14/11/2017 – 06/2018 Thessaloniki, Greece
ERASMUS COORDINATOR ASSISTANT ARISTOTLE UNIVERSITY OF THESSALONIKI

- Redesigned the department's Erasmus webpage
- Created a tool to automate the weekly schedule translation from Greek to English.

30/06/2016 – 29/09/2016 Thessaloniki, Greece
SOFTWARE ENGINEER (INTERNSHIP) FIELDSCALE

- Created a fully-automated module using Wix toolset that creates a setup.exe
- Integrated it into the production pipeline
- Developed the front-end of the web solution for the company's Product

14/09/2013 – 30/12/2015 Thessaloniki, Greece
DIGITAL GAMES DEVELOPER ACM, CHAPTER ARISTOTLE UNIVERSITY

- Interior levels designing in Unity
- Exterior levels designing in Unity

31/08/2015 – 29/11/2015 Lublin, Poland
ANDROID & FRONT-END DEVELOPER MUSEUM GALERIA LABIRYNT

- Developed 2 Android games to be used by kids in conjunction with exhibitions
- Developed a website with detailed information about the ongoing exhibition

14/01/2015 – 30/08/2015 Thessaloniki, Greece
SUPPORT OF THE ACADEMIC STAFF IT CENTRE OF ARISTOTLE UNIVERSITY

Assisted the academic community with the use of videoconferencing services
Assisted the academic community with the use of Open Academic Courses (opencourses.gr)

LANGUAGE SKILLS

Mother tongue(s):   **GREEK**

Other language(s):   **ENGLISH - C2**

DIGITAL SKILLS

Machine Learning & Data Science

Deep Learning frameworks: PyTorch,Tensorflow,Keras │ Python visualization libraries (Matplotlib &
Seaborn) │ Hyperparameter optimization │ Data Science: Machine Learning, Data Analysis, Data
Exploration, Data Wrangling, Data Visualization

Programming

Python | C++ | Java | Git | SQL/MYSQL | Android | WiX | Jason (agents) | Qt

Web

HTML | CSS | Django | AngularJS | JavaScript | PHP

Miscellaneous

Photoshop | LaTeX | Unity 2D/3D | piano | Judo

ADDITIONAL INFORMATION

PUBLICATIONS

Applying Transfer Learning on Energy Forecasting – 2024
We showcase improvements in prediction accuracy by applying Transfer Learning with Neural Networks, training the model on multiple countries concurrently.

[submitted]

Predictive Maintenance under Absence of Sensor Data – 2023
We modeled the task of predicting the Remaining Useful Life of industrial machines based only on construction data and their running lifetime as a classification problem to increase the volume of available data and enable the use of Machine Learning models.

[submitted]

Retail Demand Forecasting for 1 Million Products – 2022
Short-term forecasting for retail demand with Machine Learning models, covering a retail chain with 300 stores and taking into account calendar events, promotions and interactions between competing products.

Architecture-Agnostic Time-Step Boosting: A Case Study in Short-Term Load Forecasting – 2022
Proposed an architecture-agnostic methodology for Neural Networks that adjusts the model's weights during training to optimize it towards the time steps that are most difficult to predict.

COMMITTEES

Programme Committee - AIAI2024, Corfu, Greece

Programme Committee - PRICAI 2023: AI-IMPACT TRACK, Jakarta Indonesia

Programme Committee - ICANN 2023, Crete, Greece

Programme Committee - ICANN 2022, Bristol, UK

HONOURS AND AWARDS

06/10/2017
1st place in the WikiFemHack2017 hackathon – Wikimedia Community User Group Greece

2017
Commendation for my distinction in the NASA Space Apps Challenge – Aristotle University of Thessaloniki, Greece Local Peoples' Choice Winner

Link https://youtu.be/ZuevncMevrc