PERSONAL INFORMATION
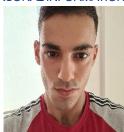
Ioannis Pastellas

- Athanasiou Diakou 11A, Mesa Geitonia, 4000, Limassol
- 9341074
- giannispast9@gmail.com
- Giannis Pastellas (Messenger)

Sex Male | Date of birth 02/09/1998 | Nationality Cypriot

WORK EXPERIENCE

06/2021-Present

Machine Learning Research Associate

Ubitech LTD

- Developing and deploying of Machine Learning or/and web application for EU projects
- Researching different ML (Machine Learning), AI (Artificial Intelligence) and data technologies
- Deploying ML models on Kubernetes-Docker
- TALON project
  1. Setting up K8S cluster with Kube-OVN CNI
  2. Prometheus K8S cluster monitoring with InfluxDB persistency.
  3. Self-Orchestration (Network Policies (QoS etc., self-healing (vertical/horizontal scaling, etc.)
  4. Network Intelligence, utilizing AI to predict future Network & Resources demand and apply proactively policies.
- Research on XAI (eXplainable AI) tools and papers (e.g., LIME, Gems-AI, SHAP,) and try to answer how XAI methods are scored.
- GraphQL research and GraphQL gateway for other GraphQL services implementation (NodeJS).
- Object Detection and Image XAI, for project that required Wildfire detection, and human intruder or humans needed assistance after an incident.
- Network Intrusion Detection System research (available modules, datasets, methodologies etc.).
  1. Data Processing & Feature Selection on existing datasets
  2. Using Elastic Packetbeat create incremental statistics of network flow for Anomaly Detection using Autoencoder & other Supervised Models.

- Elasticsearch Experience (Java, Python)
- Research on predicting terroristic attacks and illegal activities (LAW-GAME project)
  1. Autoencoder for Anomaly Detection in movements of avatars
  2. Next Location prediction using LSTM neural network, with network structure optimization using simple Genetic Algorithm
  3. Data Pre-processing and analysis of time-series data

Business or sector AI/ML/Big Data (EU projects)

06/2020-08/2020

Data Scientist Intern

AC Goldman Solution & Services

- Developing and deploying of Machine Learning model in the Banking Sector (Credit Scoring)
- Performing Explainable AI techniques to explain model's decision
- Building a simple UI of showcasing the model using Flask

Business or sector Banking (Explainable AI)

EDUCATION AND TRAINING

09/2022-06/2024

MSc in Artificial Intelligence

University of Cyprus, Nicosia, Cyprus

- ♦ General Grade: 8.94
- ♦ Notable Courses: Machine Learning (9,5), Natural Language Processing (9.0), Machine Learning for Vision & Graphics (8.5), AI Ethics (9.0)
- ♦ Thesis Description: Offline Reinforcement Learning in World of Tanks

09/2017-06/2021 **BSc in Computer Science**

University of Cyprus, Nicosia, Cyprus

- ♦ General Grade: 8.31
- ♦ Notable Courses: Artificial/Computational Intelligence (8.5), Information Retrieval and Search Engines (9), Corporate Finance (10), Probability & Statistics (9), Algorithms & Complexity (9)

09/2017-06/2021 **Apolytirion**

Lanitio Lyceum, Limassol, Cyprus

- ♦ General Grade: 19.75,
- ♦ main courses: Computer Science (19), Mathematics (20), Physics (20), CISCO (20)

PERSONAL SKILLS

Mother tongue(s)   Greek

Other language(s)

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
English				
C1	C1	B1	A1	C1

Communication skills

- ♦ Communication skills and teamwork spirit gained through the multiple group projects of my degree as well as the previous work experience

Organisational / managerial skills

- ♦ Time management skills (gained through the demanding structure of my degree as well as my personal life)
- ♦ Research

Computer skill

Languages
- ♦ Proficiency in Java (as the main language of my degree and experience)
- ♦ Proficiency in Python (through many courses, work experience and my thesis)
- ♦ JavaScript (courses, ReactJS, React Native, personal projects)
- ♦ Familiarity with C, HTML, NodeJS (through multiple courses and experience)
- ♦ Beginner with R (through one statistic course, and some other tutorials)

OS
- ♦ Linux (through my degree & work experience & personal use)
- ♦ Windows (from my personal use)

Frameworks-Libraries etc.
- ♦ NLP: NLTK, gensim(through courses), HuggingFaces
- ♦ Reinforcement Learning: Gym, TorchRL, d3rlpy, SCOPE-RL
- ♦ Web Scraping: BeautifulSoup
- ♦ Big Data: Hadoop/Spark (through a course), Elasticsearch (course and work)
- ♦ Data visualization: Matplotlib, NetworkX, Seaborn, D3.js
- ♦ Machine Learning: Keras, TensorFlow, Ski-Learn, PyTorch, LIME, SHAP, gym, Transformers (Through many courses and work experience)
- ♦ Quantum Computing: Qiskit(thesis)
- ♦ Databases: MySQL, MongoDB
- ♦ Web design: Django (through personal projects), SpringBoot (work)
- ♦ Front-End: ReactJS (and Native), Bootstrap, HTML (work, courses, pers. projects)
- ♦ DevOps: Kubernetes, Docker, git, (through work experience and projects)

Other
- ♦ MS Office (through the degree)
- ♦ Beginner in Quantum Computation (BSc thesis). Implemented QAOA for bachelor thesis project.
- ♦ Coursera: Practical Reinforcement Learning from HSE University with Honors.
- ♦ CyberHOT Summer School (Cybersecurity Hands-on Training, for offensive and defensive techniques)

Some Personal Projects

- ♦ <u>**Offline Reinforcement Learning in World of Tanks (MSc Thesis):**</u>

1. **Description:** Utilize Offline RL algorithms (IQL, CQL, Behavioural Cloning) in the context of the popular game, World of Tanks. More, specifically, this thesis involved the preprocessing of huge datasets (up to 80GB) and the training of different algorithms, along with benchmarking them using a learned model of the environment, since offline RL trains agent without actual environment interaction.
2. **Technologies used**: d3rlpy, SCOPE-RL, PyTorch, TorchRL
3. **Main Functionalities: Raw Data to MDP Replay buffer**, Training Pipelines for different ORL algorithms on the MDP buffers, Dynamics Model using DNN (Reward Model and Next State Model for simulating rollouts and get mean return), Evaluation pipeline for learned policies.

- ♦ <u>**Twitter Financial Sentiment Analysis:**</u>

1. **Description:** Finacial Sentiment Analysis & Modelling on Twitter
2. **Technologies used**: Pandas, Pytorch, HuggingFace
3. **Main Functionalities:** Data Preprocessing & Analysis, Finetuning ROBERTA-twitter model with financial sentiment text, LSTM stock value prediction (Multivariate & Univariate), Positive or Negative Tweet Generation using GPT-2 and Reinforcement Learning

Other skills   ♦   Electric guitar(self-learning)

Driving licence   ♦   B

ADDITIONAL INFORMATION

Publications
Honours and awards   Highest Overall grade of my school in Mathematics and Physics

ANNEXES   _____ ■

- ♦ copy of degree (upon requested)
- ♦ Transcript (upon requested)
- ♦ Apolytirion (upon requested along with the honours)
- ♦ Cover Letter (upon requested)
- ♦ References (upon requested)