# **Nikiforos Mandilaras**

### **Work Experience**

#### Taboola

Remote - Subcontractor at Deeplab

Machine Learning Engineer - Tech Lead

Nov. 2021 - Present

-Working with state of the art algorithms and technologies in a large scale Recommender System.

-Delivered an incremental learning framework that enabled significantly faster training and deployment cycles (x12 speedup) and in the same time achieved a consistent revenue lift over multiple traffic segments.

Ubitech Remote

Machine Learning Engineer

June 2021 - Nov. 2021

-Participation in research activities and designing solutions (eg. self-consumption optimization, energy savings estimation, flexibility prediction) for a more efficient energy consumption plan, in modern smart-grid settings.

Intracom Telecom Athens, Greece

Data Scientist / Big Data Engineer

May 2018 - May 2020

- -Design, implementation, experimental assessment and deployment of machine learning algorithms, concerning new smart features for company's products (e.g. load forecasting, grid optimisation, resource allocation).
- -Processing and analysis of vast amount of data in Hadoop environments. SW development for Big Data architectures.
- -Work experience with real-world data from telco and banking industries.

### **Education**

#### **National Technical University of Athens**

Athens, Greece

- MSc. in Data Science and Machine Learning, 9.61/10
   Master Thesis in Resource Allocation with Deep Reinforcement Learning Methods.
- Integrated Master in Electrical and Computer Engineering, 8.44/10 Sept. 2012 Feb. 2018

  Major in Computer Science: Software, Computer Systems & Networks Master Thesis in the area of Big Data.

### **Technical Skills**

**Prog. Languages**: Python, Java, C/C++

CI/CD: Airflow, Docker, Jenkins, GitLab

Deep Learning: PyTorch, TensorFlow, Keras

Practises: Design Patterns, Agile Methodologies

ML & Big Data: Apache Spark, Kafka, Impala, Paradigms: Object Oriented, Functional

**Paradigms**: Object Oriented, Functional **Web Developing**: JavaScript, React, REST

HBase, Sklearn, Pandas, Numpy

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DataBases: BigQuery, Vespa, MongoDB, Elastic

App Frameworks: Django, Spring

## **Selected Projects**

**Deep Reinforcement Learning**: Implementation of a Deep Reinforcement Learning agent, that is capable to share the last-level-cache of a multi-core system, between a Latency Critical Service and a number of Best Effort apps. The agent by utilising the DQN family of algorithms, achieved to keep the SLAs violations of the critical service below 3% and at the same time succeeded even a 4x speed up for the BE apps.

**Self Supervision**: Creation of sophisticated embeddings that boost similarity between users interacting under related context. This approach improved quality of recommendations and led to increased revenue from users with poor signal history.

**Customer Satisfaction Indexes**: Accomplish to deliver a flow of valuable insights about millions of telco subscribers, overcoming a plethora of issues present on data, by employing the power of Apache Spark.

#### Languages

### **Additional Info**

English: Michigan Proficiency (C2)

Military Service: Fulfilled Sept. 2020 - June 2021

French: Sorbonne (B2)

Erasmus+: Participation in youth exchange projects

#### **Publications**

P. Katsileros, N. Mandilaras et. al. An Incremental Learning framework for Large-scale CTR Prediction. 16th ACM Conference on Recommender Systems. RecSys '22 - Seattle, WA, USA.