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ILIAS TSOUMAS

Computer Scientist



About me

I would describe myself as a curious person for whom learning and innovation have always played an important role. I have been engaged in Computer Science and mostly on machine learning, such as recommender systems, clustering and nlp, systems security and web services areas. I enjoy getting fully engaged in what I do. Problem solving cases, especially, related to my field of expertise, have always triggered me to dig deeper, through the process of study, analysis and new synthesis.

Languages

Greek [native] ●●●●●●●●●●

English [fluent, C2] ●●●●●●●●●●

Soft Skills

- Communication
- Teamwork
- Responsibility
- Consistency
- Innovation
- Analytical Thinking
- Flexibility
- Effectiveness

Technical Skills

Programming
Python, PHP, R, Java, C

Machine Learning & Algorithms
Numpy, Sklearn, Tensorflow/Keras, Spark

Data Mining & Cleaning
Regex, Pandas, SpaCy, SQL

Data Visualization & Graphic Design
Matplotlib, Seaborn, Dash & Photoshop, Illustrator

Programming & Infrastructure Tools
Git, Jira & Docker, Bash Scripting etc

Interests

- Photography
- Board Games
- Philosophy
- Comics

Education

2018 - 2020 MSc, Data Science
Athens University of Economics and Business

2010 - 2016 BSc, Computer Science
University of Piraeus

Work Experience

12.2020 - Present

Research Data Scientist

National Observatory of Athens

Description. Research on machine learning methods and solutions in the interesection of AI, Earth Observation and Precision Agriculture focused on yield prediction, crop classification and phenology estimation using satellite image timeseries.

(unsupervised and self-supervised learning)

03.2020 - 11.2020

Machine Learning Engineer

Langaware Inc

Description. Design and development feature extraction pipeline. Extraction of audio and text features. Experimentation and use of ensemble models in order to predict neurodegenerative diseases, enhanced with model interpretations.

(feature engineering, ensemble models, feature selection methods, text classification)

06.2017 - 11.2020

Associate Researcher

University of Piraeus, Department of Digital Systems

Description. Participation in several EU-funded projects. Design and development of a novel recommender system and a complex event processing engine. Modeling 5G cloud-native applications.

(recommender systems, cep, network data analysis, machine learning)

Selected Projects

Research Papers

- **Tsoumas I**, Symvoulidis C, Kyriazis D. "Learning a Generalized Matrix from Multi-Graphs Topologies towards Microservices Recommendations". In Proceedings of SAI Intelligent Systems Conference, pp. 693-702. Springer, Cham, 2020.
- **Tsoumas I**, Symvoulidis C, Kyriazis D, Gouvas P, Zafeiropoulos A, Melian J, Sterle J. "Modelling 5G cloud-native applications by exploiting the service mesh paradigm". European, Mediterranean, and Middle Eastern Conference on Information Systems. Springer, Cham, 2019.
- Symvoulidis C, **Tsoumas I**, Kyriazis D. "Towards the Identification of Context in 5G Infrastructures". In *Intelligent Computing - Proceedings of the Computing Conference*, pp. 406-418. Springer, Cham, 2019.

Bachelor Dissertation

Data mining and knowledge discovery from social media
Implementation data analysis methods on data collection from Twitter.

Advisor: Christos Doulkeridis

(k-means, ward, NMF, python, regular expression, rest api)

@github <https://github.com/itsoum/ML-DsUniPi>

* Military services fulfilled

** References Available Upon Request