CHRISTOS THEODOROPOULOS

Doctoral Researcher

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EDUCATION

KU Leuven

Doctor of Philosophy - PhD, Artificial Intelligence

Sept. 2020 – Present Leuven, Belgium

- Research Areas: Natural Language Processing, Continual Learning, Deep Learning
- Supervisor: prof. Marie-Francine Moens

KU Leuven

Advanced MSc, Artificial Intelligence

Sept. 2019 – Aug. 2020 Leuven, Belgium

- Grade: 81.17%, Magna Cum Laude - Great Distinction

National and Technical University of Athens

Integrated BSc & MSc, Electrical & Computer Engineering

Oct. 2012 – Oct. 2018 Athens, Greece

- Grade: 81.8%, Great Distinction
- Concentration: Computer Science

EXPERIENCE

Doctoral Researcher

LIIR, KU Leuven

Sep. 2020 – Present Leuven, Belgium

- Conduct research in relation extraction field, applied to biomedical text with a focus on the reduction of supervision.
- Implement a framework using the contrastive learning paradigm, incorporating knowledge graphs and unstructured text.
- Fulfill teaching assistant duties for the "Information Retrieval and Search Engines" course, like preparing and presenting exercise sessions and project assignments.

Machine - Deep Learning Engineer, Researcher

I-SENSE Group, ICCS, NTUA

Mar. 2019 – Sep. 2019 Athens, Greece

- Worked on an internal project related to eye-tracking and object detection systems.
- Developed advanced Deep Learning architectures for gaze localisation.
- Implemented process for GAN quality evaluation using pre-trained Deep Learning models and Random Forest classifier.
- Performed data pre-processing and manipulation for the unification of images datasets related to driving conditions.

Data Scientist

Sentio Solutions Inc.

Mar. 2018 – Jul. 2018 Athens, Greece

- Developed proprietary algorithms for signal processing of HRV, related to signal reconstruction and quality estimation.
- Created procedure for data retrieval from cloud storage space.

TECHNICAL SKILLS

Python | Matlab | C | Keras | PyTorch | Scikit-learn | OpenCV | Numpy | Pandas | Matplotlib | Linux

PROJECTS

Automatic denoising of resting-state fMRI

- Designed and developed a Deep Learning framework using 3D CNN and LSTM layers for artifact removal of resting-state fMRI.
- Handled spatial and temporal information by implementing a weighted voting schema.
- Achieved comparable to state-of-the-art performance.

Emotion recognition

- Manipulated video data annotated with emotion markers using Deep Learning and Transfer Learning techniques for emotion recognition through facial expressions.
- Approached the problem as classification and regression based on the emotional space (valence-arousal).

Churn prediction

- Implemented a Machine Learning framework for churn prediction, working with official masked customer data, given by an established greek telecommunication company.
- Experimented with different classifiers and achieved over 88% accuracy by segmenting the customers to different risk groups.

Credit card fraud detection

- Developed a supervised learning model based on Random Forest classifier for fraud detection, handling the unbalanced data problem.

HONORS & AWARDS

- FWO PhD fellowship, Research Foundation Flanders, Selected by a pool of 100 applicants
- Scholarship, MSc studies, Bodossaki Foundation
- Scholarship, MSc studies, Eugenides Foundation

PUBLICATIONS

- Automatic artifact removal of resting-state fMRI with Deep Neural Networks, EUSIPCO 2021
- Can we Impose Relation-related Structure to LMs Using Contrastive Learning?, CoNLL 2021

LANGUAGES

Greek ●●●●●
English ●●●●○