Aristotelis Papadopoulos

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EDUCATION

UNIVERSITY OF SOUTHERN CALIFORNIA (USC)
PHD IN ELECTRICAL ENGINEERING
Expected May 2022 | Los Angeles, CA
Cum. GPA: 3.92/4.00

MS IN ELECTRICAL ENGINEERING
Grad. Dec 2019 | Los Angeles, CA
Cum. GPA: 3.92/4.00

UNIVERSITY OF PATRAS
5-YEAR BS IN ELECTRICAL & COMPUTER ENGINEERING
Grad. May 2016 | Patras, Greece
Cum. GPA: 7.77 / 10.0 (Top 5%)
Major GPA: 9.34 / 10.0

LINKS

Github:// **AristotelisPap**
LinkedIn:// **Aristotelis**
Website:// **AristotelisPap**

COURSEWORK

Deep Learning
Natural Language Processing
Machine Learning
Stochastic Optimization
Random Processes
Linear Programming

SKILLS

Programming Languages:
Python • C • Matlab

Machine Learning:
NumPy • Pandas • Matplotlib • Scipy • scikit-learn • Keras • TensorFlow • PyTorch • Data Analysis • Feature Engineering • Data Visualization

Other
SQL • Linux • Git • LaTeX• Tableau

AWARDS

•PhD Endowed Fellowship (May 2019)
•Viterbi School of Engineering Fellowship (Aug 2016)

SOCIETIES

•MENSA - The High IQ Society (Top 1%)
•USC Hellenic Students Association (Vice President)

EXPERIENCE

FACEBOOK
SOFTWARE ENGINEER INTERN (MACHINE LEARNING TRACK)
May 2021 – Aug 2021 | Menlo Park, CA
- Incoming intern at the Marketplace team

FUJITSU LABORATORIES OF AMERICA INC.
MACHINE LEARNING RESEARCH INTERN
May 2019 – Aug 2019 | Sunnyvale, CA
- Developed a software tool in Python for designing rule-based classification algorithms using Bayesian model selection techniques for XGBoost
- Optimized the software tool to handle multi-class classification and class-imbalanced problems
- Evaluated the proposed algorithm and compared it with the state-of-the-art Deep Learning explanation models (LIME, SHAP, Anchors) published in top AI conferences (NIPS, AAAI)

RESEARCH

UNIVERSITY OF SOUTHERN CALIFORNIA | RESEARCH ASSISTANT
Aug 2018 – Present | Los Angeles, CA
- Developed OECC, an algorithm for Anomaly and Out-of-Distribution detection that outperformed the previous state-of-the-art by **6% (paper) (code)**
- Detecting hateful users on Twitter combining tweet content embeddings and graph neural networks based on a retweet graph

CENTER FOR ADVANCED TRANSPORTATION TECHNOLOGIES
GRADUATE RESEARCH ASSISTANT
Aug 2016 – Present | Los Angeles, CA
- Led the development of a microscopic traffic simulator for the LAX airport using data provided by Los Angeles World Airports that is currently used by the LAX traffic agency **(paper)**
- Designing machine learning and optimization algorithms for personalized routing of truck drivers with data provided from more than 50 trucking companies
- Developed an optimization algorithm for optimum traffic assignment combined with a game-theoretic pricing strategy and reduced traffic congestion by **9**%
- Published results in 3 peer-reviewed journals and 2 international conferences (1st author)

POWER SYSTEMS, RENEWABLE AND DISTRIBUTED GENERATION LABORATORY
UNDERGRADUATE RESEARCH ASSISTANT
Dec 2014 -- May 2016 | Patras, Greece
- Designed a control algorithm to reduce oscillations in convey-crane systems
- Developed a novel control algorithm for inverted pendulum system stabilization
- Published results in 2 international conferences in IEEE Xplore (1st author)

SELECTED PROJECTS

- **Question-Answering with BERT and Knowledge Distillation:** Fine-tuned BERT on SQuAd 2.0 Dataset. Applied Knowledge Distillation (KD) and fine-tuned DistilBERT (student) using BERT as the teacher model. Reduced the size of the original BERT by **40%** . **(code)**