ALEXANDRA ZISIMOPOULOU

SOFTWARE DEVELOPER

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zisimopoulou.github.io

in Alexandra Zisimopoulou

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SKILLS

Programming Languages: Python, Java, C++, MATLAB

Hard Skills: TensorFlow, Matplotlib, Numpy, Keras, SQL, NoSQL, MongoDB, Git, Jira, Supervised learning

Languages: English, Greek

EDUCATION

Master of Science in Physics, University of Copenhagen

2018 - 2020

Thesis Title: The CMB on large angular scales

Bachelor of Science in Physics, University of Crete

2012 - 2018

Thesis Title: Perfect Transmission in Non-Hermitian Scattering Media

GPA: 7.82/10

PROJECTS

Machine learning projects in supervised & transfer learning: Data processing, feature manipulation, model selection, training, evaluation, and prediction. Graphical representations (e.g., F1 scores plot, confusion matrix etc).

SkimLit - Natural Language Processing

This project utilizes the PubMed 200k RCT dataset and NLP techniques to classify medical abstract sentences into roles (e.g., objective, methods, results). It explores various text classification model architectures and strategies.

Food Vision - Computer Vision

In this food image classification project, we utilize the Food101 dataset and TensorFlow Datasets, exceeding DeepFood's top-1 accuracy.

Master Thesis: The CMB on large angular scales

- Experience in statistical analysis, data visualization, and numerical programming.
- Experience in exploratory data analysis to extract valuable insights from data.
- Mathematical Skills: Linear algebra, Statistical mechanics, Differential Equations

PROFESSIONAL EXPERIENCE

Software Developer

07/2022 - now

PublicNEXT

- Technologies: Spring framework, Oracle SQL Developer, MongoDB, Git, Jira
- Expertise in Oracle SQL and in database management, including procedures, triggers data manipulation, query writing, table creation, and optimization.
- Worked on Microservices
- Implemented Restful API communication workflows
- Projects: Cart redesign, IRIS & Revolut payment methods, automation of Viber/SMS and email workflows, etc.

10/2021 - 01/2022 Researcher

Foundation for research and technology

Numerical calculations of optical and thermodynamic properties for metals.

COURSES

TensorFlow Developer Certificate in 2023: Zero to Mastery

10/2023 - 01/2024

- Neural Network Regression & Classification
- Computer Vision

- Transfer Learning
- NLP

Time Series

- Supervised Learning
- **CS-473 Pattern Recognition**
- Likelihood & Distribution function Hypercube and Gaussian functions
- Parzen Windows classifier

- Prior and Posterior Probabilities - Maximum Likelihood Estimation
- kth-Nearest Neighbor (KNN) algorithm Steepest Descent algorithm

- Bayesian Parameter Estimation