KONSTANTINOS KALLIDROMITIS

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EDUCATION

Cornell Tech | New York May 2020

Master of Engineering in Electrical and Computer Engineering | GPA: 3.91

Honors/Awards: Merit Scholarship Award Teaching Assistant Deep Learning CS 5787

University of Southampton | Southampton, United Kingdom

2016 - 2019

Bachelor of Engineering in Electrical and Electronic Engineering | GPA: 4.0 Honors/Awards: First-Class Honors, Honor Award for Machine Learning Thesis

TECHNICAL SKILLS

Coding Language Python, R, SQL, JavaScript, C++, MATLAB, HTML/CSS

Operating Systems Linux, Windows, UNIX

Other Tools PyTorch, TensorFlow, CUDA, Scikit-learn, Spark, Django, Firebase, AWS

EXPERIENCE

Cornell University | Machine Learning Graduate Researcher (New York)

January - May 2020

- Trained a Generative Adversarial Network (TensorFlow) on a facial recognition dataset, CelebA-HQ, with 30K images using
 incremental learning with a final accuracy of 87.5%
- Investigated the impact of using optimization techniques to manipulate images for computer vision models and performed adversarial training to increase the robustness of the model and negate the changes to the original accuracy

Jaguar Land Rover | Engineering Intern (United Kingdom)

June – September 2018

- Programmed an HMM hierarchical model to allow a car to change lanes in a highway to simulate a human driver and analyzed over 10 hours of self-driving data using multiple features of the car and environment, such as speed and position of vehicles
- Achieved electromagnetic compatibility in the new electric car series and was able to reduce the motor costs by ~25%

PricewaterhouseCoopers (PwC) | Software Engineering Intern (Greece)

July – August 2017

- Analyzed client-company data points (SQL, Python) using features relating projects and work hours to support consulting advice
- Programmed part of an internal large-scale software platform for SAP to expand data collection within the company by ~33%

Epsilon SA | Data Science Intern (Greece)

July – August 2015

- Created a dataset of 10K hospitals and healthcare providers in Greece by coding web scrappers
- · Performed data analysis on phone numbers, locations and treatments to increase accessibility to healthcare services

PROJECTS

Predicting Stock Prices, (R, Azure, SQL)

February 2020

Project to predict closing stock prices for AAPL and AMZN for the following 5 days based on the history of the stock

- Trained a time series LSTM on 20K daily closing prices of Apple and Amazon stocks since 2011
- Achieved one-day accuracy of 50.5% by continuous learning e.g. connecting the algorithm with an API to receive updated prices every 10 seconds, make new predictions and retrain with the new data

Recommender System for TV shows (Python, SQL, JavaScript, GCP)

July 2019

Project to suggest shows based on a user's watch history from the website MyAnimeList

- Analyzed 800K rows of tabular information on 6K real users from with PCA and distribution plots
- Performed collaborative recommendation using k-Nearest Neighbors (kNN) and content-based recommendation with Gaussian Mixture Models (GMM) and k-means clustering methods

Adversarial Attacks on Neural Network Architectures - Thesis, (Python, PyTorch, AWS, CUDA)

June 2018

Undergraduate Engineering Thesis on manipulating neural networks using sophisticated attacks and defensive methods

- Achieved a 94.82% accuracy using state-of-the-art convolutional self-driving neural network (ResNet34) on the German Traffic Sign Dataset using multi-GPU parallel training on the university cluster
- Trained a binary classification model on facial-recognition dataset (VGGFace2) with a 99.22% accuracy on the LFW benchmark

OTHER INTERESTS/VOLUNTEERING

Microsoft Student Partner (New York)

October 2018-May 2020

• Educating data science and machine learning techniques to MBA and graduate level students (Azure, ML Studio, TensorFlow)

K12 Volunteer (New York)

October 2019 - January 2020

Supporting the women's programming competition and a teaching programming to children from underprivileged neighborhoods