MILTIADIS SARATZIDIS

SENIOR MACHINE LEARNING ENGINEER

PROFILE

More than 11 years of experience in Computer Vision, Machine Learning and Robotics. Industry and academia developed my passion for optimized software development and research.

SKILLS

Programming languages:

C++, MATLAB, Java, Python, C, CUDA, OpenMP (MPI), CilkPlus, R, Visual Basic, SQL, MERN, MongoDB, React, Node.JS

Deep Learning:

TensorFlow, Pytorch, Caffe2, Graph Convolutional Neural Networks, Convolutional Neural Networks, Recurrent Neural Networks, LSTM, RNN, Gaussian Mixture, Bayesian Optimization

CONTACT DETAILS

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WORK EXPERIENCE

MACHINE LEARNING SENIOR ENGINEER SPECIALISED ON GRAPHS

Goldman Sachs , NewYork | 2021 - Present

- Leverage the data generated by user action to build **graph convolutional models**
- Research **Natural Language Processing (NLP)** methods for connecting users based on sentiment and interests
- Build **MLOps** structure of the model and create an infrastructure for **scaling up** the applications for thousand of **real-time users**

MACHINE LEARNING TEAM LEADER

10Clouds , Poland | 2020 - 2021

- Working with **multimillion-dollar** businesses in the **US** using **Machine Learning**
- **Leading a team of 6** talented ML engineers, Building **MLOps** procedures in the team
- Main technologies: **Graph Convolutional Neural Networks (GCNN), Natural Language Processing (NLP), DialogFlow, MLOps, Computer Vision, Voice Recognision**

SENIOR DATA SCIENTIST

Congruity 360, NewYork | 2019 - 2020

- Working within a professional setting with Python, C++, MERN
- **Managing a team** for **novel solution** that classify documents in large datasets
- Solving real problems with no documented path, **combining research** and **development** on **tight deadlines** in order to **deliver to customers**
- Using **Deep Tech, Natural Language Processing (NLP),** and **Pytorch-Tensorflow**

SENIOR MACHINE LEARNING SCIENTIST

Jenoptik LTD, UK | 2018 - 2019

- Working as a researcher in **Deep Learning Computer Vision** for automation of cars
- Working and innovating with cutting edge technologies for optimal performance
- Main technologies development: **Python**, **C++**, **Caffe, CUDA**

DATA SCIENTIST

NeraLabs Technologies LTD, UK | 2016 - 2018

- Developing novel solutions to **predict** the **Stock Market** using **Machine Learning**
- **Accelerating** the product from **prototype to production** by **35%**
- Main technologies development: **Python**, **C++**, **MATLAB, Pytorch**, **Tensorflow**, **CUDA**

DEEP LEARNING RESEARCHER

University of Bristol | 2015 - 2017

- **Computer Vision** and **Deep Learning** using **CNN, Graph CNN**
- Working with **Python, Pytorch, MATLAB, TensorFlow** during the **prototype phase**
- Working with **C++**, **C**, **Caffe2** and **CUDA** during the **deployment phase**

SKILLS

Computer Vision - Image processing:

SLAM, Image Classification, Object Detection, Object Tracking, Semantic Segmentation, OpenCV, Optical Flow, Filters Frequency Domain, Dynamic Texture

Robotics:

Arduino, FPGA, Robotics Simulations, Raspberry Pi, ATmega16, Assembly

Web Development:

React, MangoDB, NodeJS, JavaScript, Django, CSS, HTML5

Linux - Cloud Computing:

AWS, Docker, Super Computer University of Bristol,

Mathematical Skills:

Numeric Analysis, Linear Algebra, Calculus, Data Science, Differential Equations, Probabilities, Statistics, Computing and Numerics

General Technologies:

GANs, NLP, Graph Theory, Graph Convolutional Neural Networks, SPARQL, DialogFlow

EDUCATION

PH.D. STUDIES IN MACHINE LEARNING - COMPUTER VISION

University of Bristol | Stopped during 2nd Year to focus on gaining industry experience

MASTER'S - BACHELOR'S DEGREE IN ELECTRICAL AND COMPUTER ENGINEERING

5 Year Degree in Aristotle University of Thessaloniki, Greece

PUBLICATIONS/PROJECTS

PAPER PUBLICATION: AUTONOMOUS OCR DICTATING SYSTEM FOR BLIND PEOPLE - PUBLICATION PAGE

Global Humanitarian Technology Conference, Seattle Washington. C.Liambas, M.Saratzidis

- Working directly with **Visually Impaired people** to **optimize performance** of the **device** under **real conditions**
- Development of **scientific paper** and **presentation** in a prestigious conference
- Using **MATLAB** for **prototyping** and **C++** together with **RaspberryPi** for **deployment**

CLASSIC NN VS C3D (CONVOLUTIONAL NN 3D) - GITHUB PAGE

Goal was to identify Dynamic Texture using two different NN Architectures

- Achieve deep understanding of different Neural Network architectures
- **Deep Learning tools** were used for **comparative analysis** of the differences between the **two architectures**
- Built on **Python**, **Pytorch**, **OpenCV**

SEQUENCE MODELS APPLICATION - GITHUB PAGE

Goal of these 3 projects was to understand how Sequence models work and what is the difference between Convolutional and Sequence Neural Networks like LSTM

- Working with **LSTM** and **RNN**
- Working with **signals processing** instead of computer vision
- Built on **TensorFlow** and **Keras**

CUDA PARALLEL PROGRAMMING HISTOGRAM - GITHUB PAGE

Goal of this project was to better understand CUDA and parallel programming.

- Built from scratch in CUDA without ready to use functions
- Built to work for one-dimensional and **two-dimensional arrays**, providing full support for images
- Built on **MATLAB** combined with **CUDA**

ROBOTICS UNIFORM SHAPE MOVEMENT WHILE AVOIDING OBSTACLES - GITHUB PAGE

Goal of this project was the development of a robotics simulation

- Built **interactive visualization** system for the **simulation**
- Developed the **mathematical infrastructure** using **linear algebra** and **vectors**
- Built from scratch in **MATLAB**