Mariem Khlifi

MSc. Student

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About me

-OpenSource contributor to PyGraphistry
-Taught programming in the women's digital program
-Participated in GetAhead, an invite-only program by Google
-Gave a talk about sparse PCA in the Women in Data Science Conference

Skills

Algorithms and Data Structures

Python

Linux

Performance Optimization

Computer Vision

Machine Learning

Java

Git⋆5 ROS⋆5 SQL⋆4 C,C++⋆3

(*)[The skill scale is from 0 (Fundamental Awareness) to 6 (Expert).]

Languages

Arabic

French

English

German

Spanish

Japanese

Education

10/18-now M.Sc. in Computer Engineering — Technical University of Munich
Specialized in Automation and Robotics
Thesis Topic: "6D Pose for unknown objects based on their topology"
Grade: 3.3

09/16-09/18 M.Sc. in Engineering — IMT Atlantique
Majoring in Computer Science
Grade: 3.5

02/18-06/18 Exchange Semester — Czech Technical University in Prague
Computer Vision by Prof. Jiri Matas
Grade: 3.75

Research Experience

09/20-10/20 Research Intern at Robotics Lab at NAIST in Japan — Internship
Completed 6D pose estimation using deep learning libraries and created new dataset for new objects.

09/20-10/20 Research Intern at BRAIN Project at IMT Atlantique — Internship
Used the Ridge Regression on the Sherlock dataset from OpenNeuro for the classification of an image with a cerebral response.

Experience

Since 08/20 Research Assistant at Chair of Embedded Systems and IoT — TUM
Worked on version control and automatic documentation generation.

01/20-04/20 Student Programmer — German Aerospace Center
Used PCL library to extract the RGBD dataset from the point clouds. Developed interfaces for the detection algorithm of the robot using C++.

09/17-01/18 Computer Science Tutor — IMT Atlantique
Assisted 20 students per week and taught basics of algorithms and data structures.

Projects

2020 Disparity Maps (Computer Vision)
Developed the disparity map calculator and optimized it to be 2.5 times faster with the help of Processes using the Concurrent library.

2020 FixMyInternet Bot
Developed and designed a bot that will assist 2500 residents of the student city. Used NLP to analyse the requests made by the users. Performance x3 enhanced by tailoring the list of stop words to the context of Internet usage.

2020 Impact of governmental measures due to Covid-19 on GHG emissions
Processed flight dataset and used algorithms for estimations including SVM, RNNs and PCA. Developed Frontend and backend for predictions.

2019 Drawing with hand movements through a Camera
Developed an algorithm that uses the camera and hand movements to draw on a canvas.

2019 Reinforcement Learning for Robotic Penalty Kicks
Developed the C4.5 Decision Tree algorithm for reinforcement learning to teach NAO to perform penalty kicks.

Awards

2020 Technical University of Munich GHC 2020 Grant
2018 Winner of the HackaTUM Zeiss challenge during a hackathon
2016 Scholarship of Excellence to French Engineering Schools (based on merit)
2014 Award for ranking 50 out of 10 000 for my degree in Mathematics