Mariem Khlifi

M.Sc. Computer Engineering and Information Technology

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Github https://github.com/khmariem

Hobbies Literature, Music, Kayak (almost drowned once but I still love it), Green Tea

Education

2018–Present **M.Sc.**, *Technical University of Munich*, Germany.

Computer Engineering and Information Technology, Automation and Robotics

2018–2018 **Exchange Semester**, *Czech Technical University*, Prague, Czech Republic. Artificial Intelligence and Computer Vision, GPA 3.75/4.0

2016–2018 **Master of Engineering**, *IMT Atlantique*, Brest, France. Computer Science (Major), Networks and physics, GPA of major: 3.5/4.0

2014–2016 **Bachelor in Mathematics and Physics**, *Preparatory Institute for Scientific and Technical Studies (IPEST)*, La Marsa, Tunisia.

Succeeded in written and oral exams for French Engineering Schools

2010–2014 **High-School baccalaureate**, *Pioneer High School*, Kairouan, Tunisia, Mathematics and Physics.

GPA 3.8/4.0

Work Experience

September Summer Research Intern, Nara Institute of Science and Technology, Ikoma,

2019- Japan.

October Work conducted in the Robotics Laboratory at NAIST. I implemented 6D pose estimation 2019 for UR5e robot using state-of-the-art methods and collected dataset to train YOLO for

March Web Developer, Elasticbrains, Munich, Germany.

2019-Present *Part-time job

*Solve flaky tests problem

*Implement new functionalities using Ruby on Rails and bootstrap.

object detection and run the pose estimation on the detected objects.

August 2018 Summer Research Intern, IMT Atlantique, Brest, France.

I conducted research at the electronics lab where I worked on finding a structure in the visual cortex in the brain that resembles the layers of neural networks like InceptionV3.I used the Sherlock dataset from openNeuro consisting of fMRI data of subjects who have watched the sherlock movie and feature vectors that I extracted from the actual video frames.I used the Ridge Regression for the classification. The results showed primary positive outcome, however many outliers existed and an idea of another fMRI experiment is necessary for the validation.

September **Tutor in Computer Science**, *IMT Atlantique*, Brest, France.

2017-January As a top student in the Computer Science major of my university, I was chosen to ensure 2018 tutoring for students to help them encounter the problems they face in the courses. I taught programming languages, helped debugging code and explained Computer Science theory for approximately 20 students every week.

July **Summer Intern**, *Tunisia Telecommunications Operator*, Kairouan, Tunisia.

2017-August I was initiated to the tools used to pilot the infrastructure corresponding to the 2G, 3G and 4G networks. There were also on-place interventions to repair damaged equipment. Finally, I designed a web application with PHP and HTML that would help the engineers save and access easily the data related to the structure.

Extra-Curricular Activities

May Participant, Google, GetAhead.

2019-August GetAhead is an invite-only program that provides for the participants workshops and weekly 2019 coding sessions provided by Google engineers.

Projects

University Projects

May **Biologically inspired learning in robotics**, *TUM*, Munich, Germany.

2019–July *Manipulate the NAO robot to detect an object and reach to it.

2019 *Teach NAO how to score a penalty kick with a moving goalkeeper using reinforcement learning.

February **Betting Software**, *IMT Atlantique*, Brest, France.

2017-June This project was conducted in a group of ten students and it was composed of two parts: 2017 Conception of the software via UML modeling. Implementation of the software and the adequate testing programs using Java. I was responsible for the part of the software related to the players, the interface that would allow them to create new bets on games and the

January 2017 Decoding brain activity evoked during a fMRI experiment, IMT Atlantique, Brest. France.

> This 1-week work was based on the HAXBY study to confirm if inverse inference is valid or not, i.e, if from the cerebral images done with fMRI we can identify the object seen by the person.

Hackathons

June 2019 ERD Hack.

LIDAR based airplane scanning to check its health.

May 2019 Hackaburg.

Web app to jump on a passing car going in the same direction as you.

April 2019 PaxTechHack.

Enhance passenger experience using AR.

December Science Hack.

We developed a project that creates sounds from detected objects. Our goal was to see with our ears. I worked on the detection part and enhancing the speed by using multi-threading. The result of detection was 4 times faster than sequential running.

November HackaTUM 2018,WINNER!.

2018 https://devpost.com/software/alexa-eye-doctor

Talks

March 2019 Women in Data Science Conference (WiDS), Munich, Germany.

- *I gave a 20-minute talk for the Women in Data Science Conference that is happening worldwide.
- *My audience consisted of approximately 100 attendees.
- *My talk was about sparse PCA and topological structures.

Skills

Languages

Arabic (native), French (Bilingual), English (C1), German (B2)

Programming Languages

Python, Java, Ruby

DevOps

Docker, Kubernetes, Helm

Frameworks and Others

ROS, Flask, Bootstrap, Bash, Git, HTML, CSS, PHP, SQL, MongoDB, Linux/Unix, TCP/IP, Web Security against SQL injection and XSS, machine learning, data structures

Awards

- November 2018-HackaTUM Winner: My team won the Zeiss challenge.
- January 2017-3rd Place in a Cars Contest: My team was ranked third in the competition of building cars controlled via an Android App and that we worked on in a team of 9 students. I was part of the Android team.
- July 2016-Scholarship of Excellence: After succeeding in the examination of entrance to French engineering schools, I was awarded the Tunisian scholarship of excellence to pursue my studies in France.
- July 2014-Regional Award of Kairouan: I had the first position in my region for my baccalaureate degree.
- July 2010-Regional Award of Sousse: I had the first position in the region of Sousse in a national competition.