Mohammad Ali HAMDAN
BE Computer and Communications Engineering

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📍 Beirut, Lebanon ℹ Lebanese 30.12.1997

💼 PROFESSIONAL EXPERIENCE

September 2019
December 2019

Artificial Intelligence Intern | BMW GROUP | Munich, Germany
- › Research Imitation Learning Literature
- › Research 6DoF Pose Estimation benchmark deep learning models
- › Implement Imitation Learning and Pose Estimation models
- › Collect and prepare real and simulation data for training the models
- › Integrate the developed models with NVIDIA ISAAC application.

Python | C++ | Machine Learning | Image Processing | Tensorflow | Pytorch | Computer Vision | Deep Learning
Reinforcement Learning | NVIDIA ISAAC

Dec 2018
present

Co-Founder | MEDICAL SERA | Beirut, Lebanon
- › Medical Sera is an electronic research assistant for medical researchers
- › Worked with the technical team of Medical Sera
- › Develop a Natural Language Processing tool that extracts specific data from research papers

Startup | NLP | Medical Reseach

Jan 2019
April 2019

Research Assistant | AMERICAN UNIVERSITY OF BEIRUT | Beirut, Lebanon
- › Worked at the Virtual Reality(VR) Lab at AUB on VR headsets tracking project
- › Research was mainly focused on Visual-SLAM
- › Created a couple of VR applications
- › Implemented Visual-SLAM to track the motion of the VR headset and project the rotation and translation into the VR scene

Virtual Reality | Computer Vision | Unity | C# | Python | C++

Dec 2018
July 2019

Software Engineer | CLOUD GATE CONSULTING | Beirut, Lebanon
- › Develop Augmented Reality applications
- › Prepare project proposals and prototypes
- › Implement Computer Vision solutions to assist the Augmented Reality team
- › Work within the Backend Web Development team

Augmented Reality | Computer Vision | Vuforia | C# | Python | Django

Jan 2018
Sep 2018

Part-time Software Engineer | SAUGO 360 CORP. | Beirut, Lebanon
- › Backend Web Development
- › Testing APIs
- › Preparing reports and estimations in the process of bidding on projects

Web Development | Python | Django

July 2017
Aug 2017

Software Developer Intern | SAUGO 360 CORP. | Beirut, Lebanon
- › Worked on network management and orchestration project
- › Develop, test and integrate RESTful APIs

Software Defined Network | Python | Backend Development | YANG | GNS3

Nov 2016
Feb 2017

IT Assistant | IT - AMERICAN UNIVERSITY OF BEIRUT | Beirut, Lebanon
- › Worked with the helpdesk team
- › Trouble shooting computer and network failures in the university.

IT | Problem Solving

🎓 EDUCATION

Sep 2015 December 2019	BE Computer and Communications Engineering	AMERICAN UNIVERSITY OF BEIRUT (AUB)	Beirut, Lebanon › Major : Computer and Communications Engineering › Minor : Economics › Focus : Software, Machine Learning and Data Mining Machine Learning · Algorithms Analysis · Python · C++ · Data Mining · Software Testing · Economics · Telecom.
Sep 2017 Feb 2018	Machine Learning Fundamentals with Python Track	DATACAMP	Online › Supervised Learning with scikit-learn › Unsupervised Learning in Python › Linear Classifiers in Python › Machine Learning with the Experts : School Budgets Machine Learning · Python · Supervised Learning · Unsupervised Learning

📖 PROJECTS

2018	Immersive Virtual Reality Experience : Using Visual-SLAM to track headsets with one RGB-camera
2018	Emotion Classification for Arabic Tweets Using Transformer Neural Network (SemEval-18)
2018	Doctor's website with sign up, login, take an appointment and upload documents functionalities using Django
2017	Patient-Aware Transfer Learning Based Approach for Detection of Life-threatening Arrhythmias with Reduced False Alarm Rate Using Cardio-signals

</> SKILLS

Python, C++ ● ● ● ● ●
Java, C# ● ● ● ○ ○
JavaScript ● ● ● ● ○
HTML, CSS ● ● ● ○ ○
Django ● ● ● ● ○
SQL ● ● ● ● ○
Git, Docker ● ● ● ○ ○

☰ LANGUAGES

Arabic ● ● ● ● ●
English ● ● ● ● ○
German ● ○ ○ ○ ○

🎓 ACHIEVEMENTS

2019	1st Place in Computer Vision - Labeling Challenge at Oerlikon Digital Hub Hackathon - Munich
2018	Founder of Artificial Intelligence Club at the American University of Beirut
2018	1st place award hackathon organized by BMW Group and Splunk
2017	Leadership Program organized by American University of Beirut

❝ REFERENCES

Boulos El Asmar
Project Lead AI and Analytics, BMW GROUP
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📞   available upon request

Hazem Hajj
Professor, AMERICAN UNIVERSITY OF BEIRUT
@   hh63@aub.edu.lb
📞   available upon request

Ali Chehab
Professor, AMERICAN UNIVERSITY OF BEIRUT
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📞   available upon request

BMW GROUP

Praktikumszeugnis

Herr Mohammad Ali Hamdan, geboren am 30. Dezember 1997, absolvierte vom 9. September 2019 bis 20. Dezember 2019 ein Praktikum in unserem Unternehmen. Während des Praktikums war Herr Hamdan in unserer Fachabteilung Projekt Innovation und Industrie 4.0 der BMW AG am Standort München eingesetzt.

Folgende Aufgaben hat Herr Hamdan im Rahmen seines Praktikums übernommen:

- Setup the environment for the Meta-Imitation Learning model, reproduce the paper results and tune the model to enhance the performance.
- Literature review of Imitation Learning.
- Run experiments (with CUDA or OpenGL) for some of the read papers (Tensorflow - PyTorch).
- Literature review of 3d Pose Estimation
- Decided on the -PVNet: Pixel-wise Voting Network for 6DoF Pose Estimation- model:
    - Setup Docker environment for PVNet and reproducing the results of the authors.
    - Specifying data requirements and in-depth understanding of the model/code.
    - Preparing training data through simulations and preprocessing it.
    - Running experiments on the collected data and analyzing the results.
    - Integrating tensorboard with the code (PyTorch).
    - Preparing the post processing scripts (C++) of model inference output.
- Dockerize Augmented Autoenconders (Implicit 3D Orientation Learning for 6D Object Detection from RGB Images) application, prepare training/testing data and run training experiments while tuning the model.
- Integrating the trained models with NVIDIA Isaac SDK.

Die Arbeitsleistung von Herrn Hamdan war jederzeit durch höchste Zuverlässigkeit, Selbstständigkeit und Verlässlichkeit geprägt. Er identifizierte sich mit seinen Aufgaben und arbeitete mit sehr viel Engagement und Eigeninitiative. Die Arbeitsergebnisse waren, auch bei wechselnden Anforderungen und in sehr schwierigen Fällen, stets von sehr guter Qualität. Sein Arbeitstempo bei der Aufgabenbearbeitung lag stets weit über unseren Erwartungen.
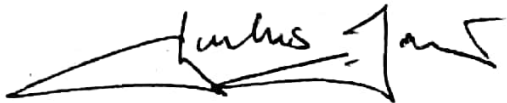
Herr Hamdan verfügt über außerordentlich umfangreiche Fachkenntnisse und eine sehr hohe Fachkompetenz. Sein persönliches Verhalten war stets einwandfrei. Bei Vorgesetzten, Kollegen und Geschäftspartnern war er sehr geschätzt. Herr Hamdan hat die ihm übertragenen Arbeiten stets zu unserer vollsten Zufriedenheit erledigt.

Er verlässt uns nach Beendigung seines Praktikums. Wir bedauern dies außerordentlich und danken ihm für die stets sehr gute und konstruktive Mitarbeit in unserem Hause. Wir wünschen Herrn Hamdan auf seinem weiteren Berufs- und Lebensweg alles Gute und weiterhin viel Erfolg.

Bayerische Motoren Werke Aktiengesellschaft

i. V.

Markus Bauer
Projekt Innovation und Industrie 4.0
TV-2-I

i. A.

Boulos El Asmar
Projekt Innovation und Industrie 4.0
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