

## Letter of Recommendation

I have known Abdulmalik as his former Manager in the Research department of his employer Elm since October 2019. He was among the initial members of my team who worked on the development of various business-driven use cases and machine-learning projects covering a range of internal and external business needs of our company.

Technically, I found Abdulmalik to have a focus on detail. Within my team, he undertook various tasks and responsibilities. This included research tasks such as algorithm development as well as engineering-level optimization of AI models such as extending deep learning models to accommodate additional inputs, augmenting to minimize cross-class bias or quantizing existing models to fit the smaller edge and mobile architectures. He was also involved in the development of an identity verification method that utilized a YOLO model to detect document forgeries by detecting illuminated holographic landmarks. The resultant IP is currently under evaluation with the USPTO.

Moreover, Abdulmalik was also engaged in other projects including the first-ever implementation of a real-time instance segmentation model (YOLO/SipMask) for the identification of damaged car parts originating from the vehicle damage identification needs in the car rental and insurance industries. His contributions have so far been either under consideration with peer-reviewed journals or various patent offices including the USPTO.

On an individual level, I found Abdulmalik to be a keen and diligent learner who never hesitated in getting involved in engineering-level details of complex scientific tasks. His outstanding analytical abilities led to design improvements in many technology use cases we considered. For instance, his interest in lightweight AI models led to the development of an int-8 quantization methodology for Tensor flow-based object detection models for mobile deployment.

On a team level, I have found Abdulmalik to have a calm and decent manner. He is an excellent team player with the ability to handle conflict and pressure very well. He has good communication skills and can convey complex ideas to the public with ease. I have found him to have a diverse range of interests. This includes contributing towards writing technical articles on social media, participating in hackathons as well as presenting his projects in local and international events such as LEAP-2021 and GITEX GLOBAL 2021.

To conclude, I strongly believe that Abdulmalik can contribute positively to both the scientific as well as academic expectations of your esteemed institution. I have no hesitation in recommending him for enrollment in the relevant program.

Yours sincerely,

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