



June 8, 2023

Recommendation Letter for Prof. Dr. Mona Diab

Dear members of the King Salman Arabic Language Prize selection committee:

It is my absolute greatest pleasure to write this recommendation letter in support of Prof. Dr. Mona Diab for the 2023 King Salman Prize for the Arabic Language .

I am a proud recipient of the King Salman Prize for the Arabic Language (2022). I am also a Professor of Computer Science at New York University Abu Dhabi (NYUAD). Furthermore, I am the director of the Computational Approaches to Modeling Language (CAMEL) Lab, which specializes in work on Arabic computational modeling.

I have had the pleasure of knowing Prof. Mona Diab since 1997 when we both embarked on our doctoral journey at the University of Maryland College Park. Throughout our time in the PhD program (She in Linguistics, I in Computer Science), it became evident that Prof. Diab possessed exceptional intellect, a relentless work ethic, and a passion for advancing the field of Natural Language Processing (NLP), Applied Machine Learning, and Artificial Intelligence. In 2003, we proudly graduated together, equipped with the knowledge and skills necessary to make significant contributions to NLP. Our professional paths intertwined once again when we had the opportunity to work side by side for close to 10 years at Columbia University's Center for Computational Learning Systems. Together with Dr. Owen Rambow, the three of us established the groundbreaking Columbia Arabic Dialect Modeling (CADIM) group, which put itself on the research map as **the** place to do state-of-the-art research on Arabic and Arabic dialect NLP.

Since 2014, the CADIM group separated as the three founders went to academic and industry positions. Prof. Diab's journey took her to The George Washington University, Amazon, Meta, and most recently Carnegie Mellon University. She continued to work on Arabic NLP while pursuing more general challenges that are relevant to all languages.

Today, with over 150 research publications, Prof. Diab is widely recognized as a top researcher in the field of NLP, Applied Machine Learning, and Artificial Intelligence. Her current research focuses on Responsible AI, Low Resource Language Processing, Multilinguality, and Crosslinguality, with Arabic NLP serving as a microcosm of these interconnected areas. Throughout her illustrious 20-year career since her PhD, Dr. Diab

has made significant contributions to Arabic NLP and technologies, pushing the boundaries of both the field and the science of NLP itself.

One of Prof. Diab's pioneering achievements lies in her research on Arabic variants processing, including sentiment analysis, social media analysis, syntactic and semantic processing, and linguistic code switching. Notably, her work goes beyond simply adapting techniques from English to Arabic; instead, she has devised new methodologies to address the inherent complexities of the Arabic language family, which encompasses a multitude of variants ranging from classical to dialectal variants, as well as its unique morphosyntactic structures when compared to English. Her groundbreaking work not only propelled the field of Arabic processing forward but also expanded the horizons of NLP as a whole. Among Prof. Diab's notable research achievements is her work on enhancing Arabic readability, particularly through targeted partial diacritization. She has also pioneered the processing of linguistic code switching, constantly challenging established NLP paradigms by viewing them through the prism of the Arabic language and its variants.

Beyond her research, Prof. Diab has dedicated a significant portion of her career to mentoring and nurturing talent in the field of Arabic NLP. She has supervised and graduated numerous Arabic NLP researchers, many of whom have returned to their home countries, serving as esteemed academic faculty and industry researchers. Prof. Diab has actively pursued publication opportunities in Arab world conferences, ensuring that local talent is exposed to the latest advancements in NLP/AI science, right at their doorsteps. Furthermore, Prof. Diab has had the privilege of bringing Arabic NLP to the forefront of international scientific venues. Through her conference keynote addresses and invited talks at renowned institutions worldwide, she has not only educated NLP practitioners on the intricacies of the Arabic language and culture but also shed light on the technological challenges posed by its complexity.

It is without reservation that I wholeheartedly recommend Prof. Dr. Mona Diab for your illustrious Prize. If you have any questions, please feel free to contact me.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'Nizar Habash', written in a cursive style.

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