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To Whom It May Concern:

I'm writing this letter to give my highest recommendation for Dr. Kamyar Givaki. I am an Assistant Professor at the Center for Advanced Computer Studies at the University of Louisiana at Lafayette, Louisiana, USA. Through my research, I am aware of Dr. Givaki's outstanding accomplishments, original scientific work, and expertise in the field.

I have known Kamyar since 2019, when we started a set of collaborations developing energy-efficient stochastic computing (SC)-based hardware accelerators. Kamyar produced exceptional research pertaining to SC, with the goal of developing energy-efficient Artificial Intelligence (AI) hardware accelerators. Kamyar's academic and professional backgrounds in computer engineering and computer architecture have enabled him to perform this innovative research. In particular, he has investigated methods for reducing the high implementation cost of neural networks. Our first project was SkippyNN, an embedded SC accelerator for convolutional neural networks. On average, SkippyNN offers 1.2x speedup and 2.7x energy saving compared to the conventional binary implementation. The result of this project was presented at the 56th Design Automation Conference (DAC'19), one of the top-tier conferences in the field of computer architecture and electronic design automation.

Kamyar further contributed to developing TaxoNN, a Light-Weight Accelerator for Deep Neural Network Training. TaxoNN provides 2.1x power saving and 1.65x area reduction over the state-of-the art DNN training accelerator. The output of this project was accepted for presentation in the 2020 IEEE International Symposium of Circuits and Systems (ISCAS). Kamyar played a major role in developing the idea, hardware implementations and simulations, and writing the technical paper in this project. Our other major collaboration was in a research project which employed the Residue Number System (RNS) to mitigate the high processing time and energy consumption of the current deterministic methods of SC. Our approach significantly reduced the latency and energy consumption compared to the state-of-the-art designs by delivering 760x and 170x reduction in latency and energy, respectively. The outputs of this project were published in IEEE Design & Test in 2021 and IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems in 2023. Kamyar was the first author and major contributor in these two papers. He managed the project from idea to publication.

Besides our collaborations, Kamyar has succeeded in publishing several other high-quality papers including a paper at the 2022 IEEE 40th International Conference on Computer Design (ICCD). Kamyar's research work has also resulted in two patent applications with the U.S. Patent and Trademark Office.

It would be remiss of me not to discuss Dr. Givaki's history of peer review service. Since I am involved in the review service of several leading journals and many rank A conferences in electronic design automation, I have the responsibility to hand-pick trustworthy, knowledgeable, and thorough reviewers for scholarly publications that are submitted. Given Dr. Givaki's exceptional and significant knowledge and experience, as well as his internationally recognized expertise in hardware design for AI applications, I selected him to review over 15 manuscripts submitted to IEEE Journal on Emerging Topics in Circuits and Systems 2023, Design Automation Conference (DAC'23), and Design, Automation, and Test in Europe (DATE'24), Asia and South Pacific Design Automation Conference (ASP-DAC'24), which are all top-tier, international scientific journals and conferences in the field. Kamyar provided very professional reviews for these papers in a very limited time period.

Kamyar is exceptionally intelligent and great at teamwork. He is not only friendly but also adjustable with other people's level of knowledge and attitudes. He has a disciplined character and takes responsibility. I believe Dr. Givaki would be a great asset to your respected group as a post-doctoral researcher. I give my highest recommendation without any reservation. I'm sure your research group can greatly benefit from his expertise and knowledge.

Should you have any questions concerning his background or qualification, do not hesitate to contact me at najafi@louisiana.edu.

Sincerely,

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