

## 1. Motivation Letter

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Dear Professor Max Welling and UvA admission officers,

My life goal is to pursue a research career in Machine Learning. Therefore, I believe working with Professor Max Welling and AMLAB's members will get me ready for my future career.

I found out about AMLAB thanks to the paper titled "Semi-Supervised Classification with Graph Convolutional Networks" by Thomas N. Kipf and Max Welling. During that time, I was developing a graph embedding method based on network motif patterns and skip-gram model. The "normalization trick" introduced in Kipf's paper is exactly what I have been looking for. Followed Kipf's implementation on github, I injected the motif co-occurrence matrix to the second graph convolutional layer to achieve a slightly better results compared to the paper. After reading more about AMLAB's other members and projects, I decided to apply for the available PhD position because I know I can learn a lot by working with people in the group.

My undergraduate major was Telecommunication and Computer Engineering and my master major is Computer Science. I have received training in calculus, linear algebra, probability theory, computer architecture, embedded system design, network science, and machine learning through out the years. Besides official courses provided by my affiliated institutes, I also extend my skills set by taking free courses from Udacity and Coursera. Although not being particularly stellar, I believe I have satisfied the basic requirements for the available PhD position at AMLAB.

To me, the most important factor in a working environment is the people I work with. Thanks to my time in Japan, I have learned the joy of living in an international environment. I learned from wifi hacking to using teflon for leakage prevention in acid-related experiments from people of various backgrounds. I always learn much more from other people compared to what I can help them back. Nonetheless, I do enjoy learning and teaching (when I can). I cannot guarantee a scientific break-through in my research, but I am absolutely sure about my passion for learning. As I mentioned above, I believe being a part of AMLAB will be a great opportunity for my career in Machine Learning research.

From Professor Richard Feynman's book, I found myself in the description of one man named Frederic de Hoffman. Feynman described him as follow: "Not highly trained, he liked mathematics, and worked very hard; he compensated for his lack of training by hard work". I am not a fast learner, but a deep one. I hope that there will be a chance for me to be considered for the available PhD position at AMLAB.

Sincerely,  
Hoang Nguyen.