Trung-Duy NGUYEN
Data Scientist at KPMG Deutschland
✉ nguyentd@eurecom.fr

Prof xxx   28 October 2017
Departament of Computer Sciene

Dear Prof xxx,

I am writing to apply for the PhD position in xxx at xxx. I am a graduate student in Data Science and Engineering at Institute Mines-Telecom, EURECOM campus SophiaTech, which is currently conducting my master thesis under the supervision of Professor Pietro Michiardi, who is the head of data science department and the master of large-scale distributed systems. I expect to complete my master program by the end of January 2018.

As my CV illustrates, I have a broad range of working experience in the industry; fortunately, most of the projects, which are in the past and on going, are immensely focused on researching and engaging state of the art machine learning algorithms into practice. I participated in the sentiment analysis project on massive dataset with Tenpoint7 which is the fast growing data consulting business based in Seattle, as a role of data analyst. In this project, I experimented numerous natural language processing (NLP) techniques and machine learning algorithms to classify users comments and reviews on giant social networks; at the end, the final analysis, which essentially influences business decisions and strategies, not only derived the adequate insight of customer behaviors, but also significantly increased up to twenty-seven percents of the revenue confirmed by Tenpoint7 partners. Recently, I had an opportunity to corporate in an academic project, which the aim is constructing a formal representation of cuisine recipes for machine learning models, with Professor Maurizio Fillipone at EURECOM, who is a famous and comprehensive researcher in Bayesian optimization and Gaussian process. In spite of researching alone, it turns out a valuable experience, which reinforces my capability of carrying out independently research and lateral thinking. I successfully designed an exceptional ingredients parser based semantics for recipes which particularly outperforms similar parsers in the field, which is one of the remarkable project outcomes.

At the moment, I am working on my dissertation at KPMG, one of the Big Four auditors and also a industrial EURECOM partner, with the main topic concentrated on scalable machine learning as a service (MLaas) in financial services and auditing. This is the key and ambitious project expected to re-innovate the financial analytics; although my position is required wide-ranging knowledge and extensive workload, I have enthusiastically researched and exposed to many parts of machine learning pipelines. The initial result is promising, specifically, the accuracy of the recommendation engine is improved more than eighteen percents, which the first phase is strengthening collaborative-filtering (both users and items based) and the second phase is integrating deep learning to recognize sale patterns as my proposal. Besides, along analyzing on machine learning models, I also get hands on experience in developing and monitoring the reliable and dynamic platform architecture, especially utilizing Docker and Kubernetes, which accelerates and simplifies the deployment of data analytic applications such as setting up a Spark cluster within minutes; therefore, I believe that practice would be beneficial for my further study and also the distinct advantage among other candidates.

As following described experience, my research interests lie in the intersection between machine learning and economics, particularly, on deep learning and Gaussian process; I am fascinated . Apart from my current research, I undertook a series of specialized courses on deep learning taught by Prof. Andrew Ng on Coursera and obtained certificates with the high distinct grades. Furthermore, I also practice myself by experimenting recurrent neural networks and Gaussian process to predict financial market time series data, which all my projects are published on Github.

Finally, I have found that pursuing a PhD degree in the academic area, where the place is full of proactive learners and inventive ideas, is the best suitable option for my career, which is my absolute decision; by contrast, the industry is not the ideal environment due to the fast pace of developing and releasing products. Thus, belong with my ultimate goal is becoming a competent researcher, I am confident that not only my unique skill set, but also my persistence in academic research will facilitate me to succeed the xxx position at your xxx University.

Enclosed section ....

Thank you for your time and consideration. I look forward to hearing from you.

Trung-Duy NGUYEN

Attached: CV