QUYNH NGUYEN

New York Metropolitan Area

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EDUCATION

Data Scientist Nanodegree. *Udacity.com* ongoing
PhD, Physics. *New York University, New York City, NY* 09/2020
MS, Physics. *New York University, New York City, NY* 2017
BS, Physics. *University of Minnesota, Minneapolis, MN* 2015

TECHNICAL SKILLS

Programming languages: extensive: Python, C++, MATLAB; familiar: SQL, Java
Technologies and tools: NLP, Scikit-learn, TensorFlow, Spark, Git, pandas, NumPy, Matplotlib

EXPERIENCE

Data Science Research Assistant 10/2020—present
For Prof. Kyle Cranmer, Center for Data Science and Physics Department, New York University
- Project Topic modeling: model how topics in sciences change over time by NLP (ongoing)
- Project Dialect map: build a map of jargon dialects in different science fields by NLP (ongoing)
- Tools used: Python, PyTorch, Spark, NLP, high performance computing

Graduate Research Assistant 2017—09/2020
Applied Math Lab, Courant Institute of Mathematical Sciences, New York University
- Designed and performed experiments
- Statistically analyzed terabyte of images using parallel computing
- Discovered a mechanism for valveless pumping in complex biological flow networks (publication under review)
- Built a mathematical model of the phenomenon

Undergraduate Research Assistant 2014—2015
Physics Department, University of Minnesota
- Developed data acquisition algorithms in C++ for the international collaboration CMS at the Large Hadron Collider, Switzerland

Summer Intern 2014
Fermi National Accelerator Laboratory, Batavia, IL
- Wrote particle physics simulations in C++ for large-scale experiments (LBNE)

PERSONAL PROJECT

Predicting Bitcoin price 2020
- Pulled data from Google Trend and Yahoo Finance indexes
- Designed a flexible interface able to train any model of choice from Scikit-learn and predict Bitcoin price based on Google Trend data and other financial indexes

RELEVANT COURSEWORK

All courses are graduate level and part of PhD program at New York University except otherwise noted
Statistics and Data Science for Physicists: statistics and modern techniques in data science (audited)
Probability: rigorous and formal studies of probability theory
Machine Learning: an introduction to machine learning (Stanford University via Coursera)
Statistical Physics: fundamentals of physical probabilistic models relevant to machine learning
Computational methods: algorithm and code optimization in for fast scientific computing

HONORS AND AWARDS

MacCracken Fellowship: for fully-funded doctoral studies 2015—2020
New York University
Hagstrum Award: for overall excellence and future promise in a graduating senior 2015
University of Minnesota