# Jiameng Pu

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## Background

Machine learning and deep learning

### Education

May. 2022 Ph.D. student in Computer Science, Virginia Tech, Blacksburg, VA.

(expected) Focus: Deep Learning, Machine Learning, Computer Security

Advisor: Dr. Bimal Viswanath

Jun. 2017 B.E. in Computer Science and Technology, Wuhan University, Wuhan, China.

Major GPA 85.72/100

## Work Experience

Aug. 2017 Graduate Research Assistant, Network Dynamics and Simulation Science Lab, Virginia Tech

- Aug. 2018 Advisors: Dr. Anil Vullikanti, Dr. Samarth Swarup

o Conducted research project in crossing domain of Deep Learning and Network Simulations

Aug. 2016 - Nov. 2016

Data Scientist Intern, IBM China Development Labs, Lab Based Service, Wuhan, China

o Participated in knowledge graph project and maintained weekly data mining workshops

Survival analysis model-based evaluation and prediction for business scenarios

Aug. 2015 Research Assistant, State Key Laboratory of Software Engineering – Wuhan University, China

- Aug. 2016 Advisor: Dr. Bo Du

o Proposed a new robust Multiview Clustering algorithm based on matrix approximation

#### Technical Skills

Languages Proficient in Python, Java, Matlab; familiar with C++, C

Models CNNs, LSTMs, RNNs, Autoencoder, GAN, Clustering, Classification & Regression models

Libraries&Tools Tensorflow, Keras, Scikit-learn, Numpy, Pandas, Scipy, PyTorch

Familiar with Eclipse, Git, Tableau, R, Processing, Seaborn, Ggplot2, NetworkX, NLTK, WEKA

Certificates Neural Networks and Deep Learning; Improving Deep Neural Networks: Hyperparameter tuning,

Regularization and Optimization; Structuring Machine Learning Projects by *deeplearning.ai* 

Courses Convolutional Neural Networks (Computer Vision), Sequential Models by deeplearning.ai

## **Selected Projects**

**Deep Diffusion Prediction,** built deep neural network(Auto-encoder) to learn and predict spreading path of diseases on large networks, explored how much Auto-encoder can learn and mutual-information relationships between neural network layers.

**Poem generator based Recurrent Neural Network,** collected and preprocessed poems by Gibran; built LSTM-based RNN with Keras to generate styled poems.

**Collaborative Filtering-based Film Recommender System,** implemented a simplified movie recommender system based on collaborative filtering learning algorithm.

**Memory Management System,** implemented a memory management system with a hashtable and memory pool using quadratic probing and buddy method.

#### **Publication**

2016 Jiameng Pu, Qian Zhang, Lefei Zhang, Bo Du, Multiview Clustering Based on Robust and Regularized Matrix Approximation, Accepted, 2016 International Conference on Pattern Recognition (ICPR 2016).