Joshua.Yuan Qiwei

Email: u1305734@utah.edu
Linkedin: https://www.linkedin.com/in/joshua-yuan-great/

Summary of Qualification

Phd candidate of CE major focuses on Machine Learning and AI; Current researches involve improving classical deep training, application of reinforcement learning and meta learning; Strong critical thinking and problem solving ability ; Good at Programming; International engineering project leadership; Capable of working independently or as part of a team.

Education

Computer Engineering, University of Utah(UU) Salt Lake City, UT, USA
Doctor of Philosophy (GPA: 3.85/4.00) Jan 2020-Present

Core courses completed: *Operating Systems; Deep Learning Systems; Graduate Algorithm*

Programming Skill: Python (pytorch/tensorflow), C

Mechanical Engineering, University of Washington(UW) Seattle, WA, USA
Master of Science in Engineering (GPA: 3.73/4.00) June 2019

Core courses completed: *Scientific Computing; Data Programming; Networked Dynamics Systems; Convex Optimization; Linear Multivariable Control; Linear System Theory; Mathematical Foundations of Systems Theory; Models of Robot Manipulation; Applications of Dynamics in Engineering; Mechanical Engineering Analysis*

Programming Skill: Matlab, Python, Java

Mechanical Engineering, University of Shanghai for Science and Technology(USST) Shanghai, China
Bachelor of Engineering, Mechanical Design, Manufacturing and Automation July 2010

Professional Experience

University of Utah Salt Lake City, UT, USA (Nov-Dec 2019)

Research Associate

Develop an inference engine using tensorflow feasible for any DNN predicting process.(Python Tensorflow Practice)

Schneider Electric Shanghai, China(2014~2017)

Project Leader(***Experienced Technical Engineer***)

Responsible for global project launch, technology management and trouble shooting.

KIOTO CO., LTD Shanghai, China(2010~2014)

Senior Mechanical Engineer ***(Production Equipment Design&Manufacture)***

Responsible for design and manufacture of new production machines, development and management of innovative technology

Skills

Language/technologies: Proficient in Python, Java and Matlab; familiar with Control Methodology, NumPy, SciPy, Tensorflow, Pytorch; previously used C/C++; Experienced with Git, Linux, Vim, CUDA.

Independent Projects

Regularization Method Development

Jan 2020-July 2020

- Design new regularization method called 'Dreg' which can boost the speed(nearly 50%) and improve the accuracy of traditional deep learning especially in large batch;
- Training various models(ResNet18, MobileNetV2 and VGG16) on different datasets(**MNIST, CIFAR10 and CIFAR100**) with new 'Dreg' Method'(Pytorch, CUDA, Vim, Linux-total coding involved over 5000 lines);
- Paper preparation possible for ICML 2021. (https://arxiv.org/abs/2011.08968)

Circuit Verification

Sep 2020-Present

- Apply reinforcement learning on circuit verification problem with similar idea of 'tsp' heuristic method;
- Use **pointer network** to calculate the input signal formulation with reinforcement learning based on **attention mechanism**(Pytorch, NumPy, Vim, Linux, C++(petboss)-total coding involved over 6000 lines).

Inference Engine

Nov-Dec 2019

- Develop a bunch of python scripts to mimic the inference engine for DNN classification process based on **tensorflow**;
- Work as a practice to familiar with deep learning and its coding implement(Tensorflow, NumPy, Vim, Linux-total coding 1000 more);

(https://github.com/JoshuaYY/testing_model_inf)