YUFENG GU

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EDUCATION

Zhejiang University, Hangzhou, P. R. China

Sept. 2016 – June 2020

- B.Eng. at College of Information Science and Electronic Engineering (expected)
- Major: Information Engineering
- Minor: Advanced Honor Class of Engineering Education (Chu Kochen Honors College)
- GPA: 3.97/4.00, 89.66/100 Ranking: 6/138 (5% in Major) 7/313 (2% in Department)

RESEARCH PROJECTS

QFlex Simulator

Bachelor's Thesis, Supervisor: Prof. James S. Duncan

Yale University, CT, U.S.

Interpretation on ASD with fMRI and Deep Learning Models

Nov. 2019 - Mar. 2020

- Used LSTM-VAE to extract features from Regions of Interests (ROIs) in fMRI.
- Combined ROIs features and correlation matrix to build graph for brain fMRI.
- Applied graph neural network on interpret ASD Biomarkers and classification.

Research Assistant, Supervisor: Prof. Babak Falsafi

EPFL, Switzerland

July. 2019

- Build CMake compilation for QFlex simulator
 - Patch for GCC-8, Boost Library and Travis-CI code formatting test
- Optimization on Activation Functions for DNN Accelerator

Aug. 2019 - Sept. 2019

- Applied custom activation functions on both training and inference in LSTM Network.
- Optimized activation functions including hyperbolic tangent and sigmoid with second-order polynomial approximations and lookup table for both forward computation and backpropagation.
- Designed digital implementation of corresponding activation functions in Verilog HDL.

Research Assistant, Supervisor: Assoc. Prof. Peng Liu

Zhejiang University, P. R. China

- Hardware Acceleration for CNN Based on Systolic Array Structure
- Nov. 2018 Apr. 2019
- Designed algorithms that support high degrees of concurrency to implement Convolutional Neural Network (CNN) with 2D systolic array structure.
- Designed digital implementation of corresponding algorithms in Verilog HDL.

HONOURS & SCHOLARSHIPS

Fellowship of Summer@EPFL (2% applicants awarded)	July 2019
Tang Lixin Fellowship (60/36,000 students in Zhejiang University)	Nov. 2017, 2018, 2019
First-Class Scholarship for Outstanding Students (2% students awarded)	Oct. 2017
Zhejiang Provincial Government Scholarship (3% students awarded)	Oct. 2017, 2019
Outstanding Student Leaders in Zhejiang University (3% students awarded)	Oct. 2017, 2019
Honorable Mention in Mathematical Contest in Modeling (MCM)	Feb. 2018

SERVICES & ACTIVITIES

Assistant in Office of Undergraduate Study	Sep. 2018 – Jan. 2019
Full-time voluntary teacher in Tuanlin Primary School, Guizhou	Aug. 2017
Member of Student Union of Lantian Community.	Sep. 2016 – June 2017
Full-time swimming coach for primary school students	June 2016 – Aug. 2016

SKILLS

English Test: TOEFL 103 (R29/L26/S21/W27), GRE 321 (V151/Q170/AW4.0)

Programming Language: Python, C, MATLAB, Linux Bash, Verilog HDL. **Development Skills**: Pytorch, TensorFlow, Modelsim, Vivado, FPGA, Latex. **Other Skills**: Swimming, Badminton, Table Tennis, Chinese Calligraphy, Guitar.

Nov. 6 2019 YUFENG GU · CURRICULUM VITAE