

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

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

Yale University, CT, U.S.

Nov. 2019 – Mar. 2020

- **Interpretation on ASD with fMRI and Deep Learning Models**
 - 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

- **QFlex Simulator**
 - 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

Nov. 2018 – Apr. 2019

- **Hardware Acceleration for CNN Based on Systolic Array Structure**
 - 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 in Guizhou Province

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.