YUFENG GU

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EDUCATION

Zhejiang University, Hangzhou, 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, USA**
- **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**
- **QFlex Simulator**   *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, 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.