Yuanli Zhu

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ACADEMIC HISTORY

Shanghai Jiao Tong University, Shanghai, China 2017 - August 2021(expected)
Electrical and Computer Engineering GPA 3.67

University of Michigan, Ann Arbor, US 2019 - May 2021(expected)
Computer Science, Junior: GPA 4.0

PROJECT HISTORY

Decaf compiler development

Course Project, January 2020-now

- Decaf is a sublanguage of Java. The compiler is developed in C++. Flex is used for lexical analysis and Bison is used for syntax analysis and semantic analysis. For the backend, TAC is used as IR generation and then translated to MIPS assembly code. Now is doing code optimization.

Combining Heterogeneous Neural Network Accelerators in Support of Autonomous Driving (paper in review)

UM instructor: Kevin Leach, Trevor Mudge

Volunteer, January 2020-April 2020

- Trained object detection models MobilenetSSD and Yolov3 with Kitti datset on Google's AI ASIC Edge TPU.
- Implementing a simple autonomous driving decision-making progress based on an open source autonomous driving frame Autoware.

Cisco IoT department, Shanghai, China

Intern, May 2019 – August 2019

- Analyzed the signal intensity of the communication equipment according to satellite photo with convolutional neural network by Keras.
- Built a simple web demo which showed the predicted signal intensity coverage of the equipment by clicking a point on the map.

Shanghai Jiao Tong University Mechanics and Vibration Laboratory

Volunteer, February 2019 – May 2019

- Accomplished a project to put on lip stick online with facial feature points detection technique with support vector machine in Matlab.

Massachusetts Institute of Technology Robotic Project

December 2018 – January 2019

- Accomplished a project to build an auto line patrol robot.
- Learnt some machine learning algorithms and realized them in Javascript.

HONORS & AWARDS

Fourth place in the 10th SJTU Mechanical Innovation Competition May 2018
Third prize in SJTU Undergraduate Excellent Scholarship November 2018

Skill: C/C++, Python, MATLAB, Oracle SQL, Git, Linux