Yuntao Han

EDUCATION

University of Edinburgh — MSc Electronics, 2022-present
Tianjin University — BEng Integrated Circuit Design and Integrated System, 2018-2022

PUBLICATION

Yuntao Han, Qiang Liu, "HPTA: A High Performance Transformer Accelerator based on FPGA", IEEE International Conference on Field-Programmable Technology (FPT'22), 2022. (in peer review)
Yuntao Han, Tao Yu, Silu Cheng, Jiangtao Xu, "Cascade Spiking Neuron Network For Event-based Image Classification In Noisy Environment", TechRxiv, 2021.

EXPERIENCE

Design of Silicon Neurons for Neuromorphic Computing Platform — 2021-2022
Implementation of neuron on CMOS circuits with simplified computational model by analysing its dynamics features. This work was funded by the Provincial College Students' Innovation and Entrepreneurship Training Program.

A Ultra-light Face Detection Solution Based on FPGA — 2021
A comprehensive project for completing a face detection solution, including dataset establishment, neural network training and FPGA implementation.

Low Power Low Noise Amplifier Design for 5GHz Band — 2021
Improve the performance of the given design to meet the requirements on power consumption and transmission quality on Cadence.

Spiking Neural Network with Feedback Structure for Image Recognition — 2020-2021
Propose a novel SNN architecture named cascade-SNN achieving STOA classification accuracy in DVS datasets with open-source DL framework SpikingJelly. This work was co-funded by the National College Students' Innovation and Entrepreneurship Training Program and the National Natural Science Foundation of China under Grant 61774110 and nominated for the excellent project of Tianjin University as the best project of the School of Microelectronics.

Intelligence Car Design — 2018-2019
Design a four-wheel intelligence car that can patrol the line automatically (1st price in Tianjin University Intelligent Car Competition) and an intelligence car that can drive itself to sounding beacons (2nd Prize in Beacon Group, North China Area Division in National University Students Intelligent Car Race).

SKILLS

Hardware Description Language Verilog & SystemVerilog; Software Programming Language Python & C++, including PyTorch and CUDA; Schematic and layout of PCB and chip with Altium Designer and Cadence separately; Data analyse with Matlab.

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