# Weichao Zhou

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## RESEARCH INTERESTS

- Artificial Intelligence, Reinforcement Learning
- Formal Methods

## **EDUCATION**

#### **Boston University**

• M.S in Computer Engineering

09/2016-present

#### **Fudan University**

M.S in Microelectronics

09/2012-06/2015

#### **Fudan University**

• B.S in Microelectronics

09/2008-06/2012

## WORK & RESEARCH EXPERIENCE

#### **Safety-Aware Inverse Reinforcement Learning**

09/2016-present

 Conducting a research on combining formal verification and inverse reinforcement learning to build up a safety-aware AI framework.

#### Micron Technology, Inc., Product Engineer

05/2015-07/2016

- Designed test cases and wrote test scripts in Python to verify eMMC and UFS products.
- Wrote test programs and scripts in C++ and Perl to test NAND memory circuits.

## TFET's (Tunneling Field-Effect Transistor) Application on Memory

03/2012-01/2014

Cooperated with semiconductor chip manufacturer to fabricate TFET units and DRAM cells based on TFETs.

#### FinFET (Fin Field-Effect Transistor) Project

01/2014-06/2015

Used Sentaurus to simulate a new FinFET structure and used SPICE to simulate circuits based on the new FinFETs.

#### High frequency AlGaN/GaN HEMT (High-electron-mobility Transistor) on Silicon Substrate

05/2014-06/2015

• Fabricated high-frequency AlGaN/GaN HEMTs on Si substrate for RF circuit applications.

### **Evaluation of Buffer Organizations for Network-on-Chip**

09/2010-05/2011

 Applied queueing theory to analyze Network-on-Chips performance under different allocations of virtual channels and channel buffer resources.

## **PUBLICATIONS**

- Weichao Zhou, Wenchao Li, "Safety-Aware Apprenticeship Learning", International Conference on Computer-Aided Verification (CAV), 2018. <a href="https://arxiv.org/abs/1710.07983">https://arxiv.org/abs/1710.07983</a>
- Weichao Zhou; Peng-Fei Wang; Zhang, D.W., "A sub-10nm U-shape FinFET design with suppressed leakage current and DIBL effect," in Semiconductor Technology International Conference (CSTIC), 2015 China, vol., no., pp.1-3, 15-16 March 2015 doi: 10.1109/CSTIC.2015.7153322
- 3. Weichao Zhou; Xi Lin; Xiao-Yong Liu; Xiang-Ming Xu; Chun-Min Zhang; Jin-Shan Shi; Peng-Fei Wang; Zhang, D.W., "Investigation of spin-on-dopant for fabricating high on-current tunneling field effect transistor," in

- Solid-State and Integrated Circuit Technology (ICSICT), 2014 12th IEEE International Conference on , vol., no., pp.1-3, 28-31 Oct. 2014 doi: 10.1109/ICSICT.2014.7021392
- 4. Ming'e Jing; Pengshuai Ren; Weichao Zhou; Zhiyi Yu; Xiaoyang Zeng, "Evaluation of buffer organizations for network-on-chip," in Solid-State and Integrated Circuit Technology (ICSICT), 2012 IEEE 11th International Conference on , vol., no., pp.1-3, Oct. 29 2012-Nov. 1 2012 doi: 10.1109/ICSICT.2012.6467882