# Peisheng (Chris) Guo

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# **EDUCATIONAL BACKGROUND**

#### Rice University | Houston, TX

Master of Electrical Engineering

Expected 12/2018

# University of Liverpool | Liverpool, UK

Bachelor of Electrical Engineering & Electronics (First Class Degree)

### Xi'an Jiaotong - Liverpool University (XJTLU) | Suzhou, PRC

06/2017

06/2017

Bachelor of Electrical Engineering (First Class Degree)

#### RELEVANT COURSES

Object-Oriented Programming	C Programming & SE	C++ Programming & SE
Design & Analysis of Algorithms	Introduction to Deep Learning	Computer Systems Architecture

#### **SKILLS**

Computer: Java, C/C++, Python, MATLAB, Assembly Language, Verilog HDL, Altera HDL, Altera Quartus

II, Modelsim, Cadence, Multisim

Language: English, Mandarin, Cantonese

#### **RELEVANT COURSE PROJECTS**

#### **University Student Management System**

06/2015

- Developed a student & course database management system in C++ with command-line user interface
- Implemented functions: authority management, add/amend/delete courses and student information management

### **Bank Information System**

12/2014

- Developed a bank information system in C with command-line user interface
- Implemented functions: customer registry & cancel, account registry & cancel, single or recurrent transfer, deposit, withdrawal

### RESEARCH EXPERIENCE

# Implementation of Data Encryption System on FPGA | Liverpool, UK

10/2016-04/2017

Summary: Designed a data encryption system on FPGA implementing Advanced Encryption Standard (AES) algorithm to perform high speed encryption for large amount data

- Analyzed the performance of AES hardware implementation with other data encryption algorithms
- Designed an encryption and decryption system based on AES on FPGA, achieving 65% speed of a system which values \$12,000 designed by Algotronix®
- Transmitted the input and output data using control panel of DE2 FPGA

# Modelling Electrical Properties of Thin High-K Gate Stacks | Liverpool, UK

10/2015-03/2016

Summary: Modeled electrical properties of High-K (HfSiO) material transistor using MATLAB

- Measured high-frequency capacitance-voltage (CV) statistics of the transistor and plotted the properties
- Developed algorithms to model various parameters of the High-K material transistor
- Constructed a model using the developed algorithms

## **EXTRACURRICULAR ACTIVITIES**

Student Club Service Center | Co-Founder & Vice President | XJTLU | Suzhou, PRC 09/2013-06/2015

• Set up and ran the center to perform management and service to student clubs and associations

## Club Program Office | Vice Minister | XJTLU | Suzhou, PRC

09/2013-06/2015

• Led a section of 20 acting as liaisons to connect student clubs, associations and school officials.