YUZHE MA

Ph.D. Student ⋄ Department of Computer Science & Engineering
Room 913, Ho Sin Hang Engineering Building ⋄ The Chinese University of Hong Kong
yzma@cse.cuhk.edu.hk

RESEARCH INTERESTS

- Design for manufacturability
- Machine learning with applications in CAD
- Physical design in VLSI CAD

EDUCATION

The Chinese University of Hong Kong, NT, Hong Kong Aug. 2016 – Present
Ph.D. student, Department of Computer Science & Engineering.
Advisor: Prof. Bei Yu

Sun Yat-sen University, Guangzhou, P.R. China Sep. 2011 – Jul. 2016
B.Eng., Microelectronics.
(GPA 92/100, RANK 1/64)
Dissertation: "A Standard Cell Layout Migration Technique"

EXPERIENCE

Cadence Design Systems, Inc., CA, USA May 2017 – Sep. 2017
Research Intern
Topic: Deep Learning/Machine Learning in Placement

The Chinese University of Hong Kong, NT, Hong Kong Mar. 2016 – May 2016
Research Assistant, Department of Computer Science & Engineering
Topic: Standard Cell Synthesis

PUBLICATIONS

Journal Paper

[J1] Jin Miao, Meng Li, Subhendu Roy, **Yuzhe Ma** and Bei Yu, "SD-PUF: Spliced Digital Physical Unclonable Function", accepted by IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems (**TCAD**).

Conference Papers

[C4] Chak-Wa Pui, Gengjie Chen, **Yuzhe Ma**, Evangeline F. Y. Young and Bei Yu, "Clock-Aware UltraScale FPGA Placement with Machine Learning Routability Prediction", IEEE/ACM International Conference on Computer-Aided Design (**ICCAD**), Irvine, CA, Nov. 13–16, 2017. (**Invited Paper**)

[C3] **Yuzhe Ma**, Jhih-Rong Gao, Jian Kuang, Jin Miao and Bei Yu, "A Unified Framework for Simultaneous Layout Decomposition and Mask Optimization", IEEE/ACM International Conference on Computer-Aided Design (**ICCAD**), Irvine, CA, Nov. 13–16, 2017.

[C2] **Yuzhe Ma**, Xuan Zeng and Bei Yu, "Methodologies for Layout Decomposition and Mask Optimization: A Systematic Review", IFIP/IEEE International Conference on Very Large Scale Integration (VLSI-SoC), Abu Dhabi, UAE, Oct. 23–25, 2017. (**Invited Paper**)

[C1] Subhendu Roy, **Yuzhe Ma**, Jin Miao and Bei Yu, "A Learning Bridge from Architectural Synthesis to Physical Design for Exploring Power Efficient High-Performance Adders", IEEE/ACM International Symposium on Low Power Electronics and Design (**ISLPED**), Taipei, Taiwan, July 24–26, 2017.

SELECTED AWARDS AND HONORS

Full Postgraduate Studentship	The Chinese University of Hong Kong	2016 –
National Encouragement Scholarship	Sun Yat-sen University	2013 – 2015
First Class Outstanding Academic Scholarship	Sun Yat-sen University	2013 – 2015
Merit Student of Sun Yat-sen University	Sun Yat-sen University	2013 – 2015

GRADUATE LEVEL COURSES

ENGG5501: Foundations of Optimization
ENGG5103: Data Mining
SEEM5350: Numerical Optimization

TECHNICAL SKILLS

Languages	C/C++, Python, MATLAB, LaTeX
Operating Systems	Linux/UNIX, MacOS
Toolkits	TensorFlow