

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 Ph.D. student, Department of Computer Science & Engineering. Advisor: Prof. Bei Yu | Aug. 2016 – Present |
| Sun Yat-sen University, Guangzhou, P.R. China B.Eng., Microelectronics. (GPA 92/100, RANK 1/64) Dissertation: “A Standard Cell Layout Migration Technique” | Sep. 2011 – Jul. 2016 |

EXPERIENCE

| | |
|---|----------------------|
| Cadence Design Systems, Inc., CA, USA Research Intern Topic: Deep Learning/Machine Learning in Placement | May 2017 – Sep. 2017 |
| The Chinese University of Hong Kong, NT, Hong Kong Research Assistant, Department of Computer Science & Engineering Topic: Standard Cell Synthesis | Mar. 2016 – May 2016 |

PUBLICATIONS

Journal Papers

- [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, L ^A T _E X |
| Operating Systems | Linux/UNIX, MacOS |
| Toolkits | TensorFlow |