

Rui Wu

CONTACT
INFORMATION

6930 Whittier Dr, Apt 141
Goleta, CA 93117 wurui90@gmail.com

EDUCATION

University of California, Santa Barbara, Santa Barbara, CA, US
Ph.D. Candidate in Computer Engineering **Sep. 2012 - Present**
Advisor: Prof. Kwang-Ting (Tim) Cheng
Thesis Direction: Variation-aware computer-aided design (CAD) for integrated photonics and optical communication systems/networks.

University of California, Santa Barbara, Santa Barbara, CA, US
M.S. in Computer Engineering **Sep. 2012 - Mar. 2015**
Course Emphasis: VLSI design, testing, and CAD; Computer architecture
(GPA:3.84/4)

Tsinghua University, Beijing, China
B.S. in Automation **Aug. 2008 - Jul. 2012**
Advisor: Prof. Hong Wang and Prof. Shiyuan Yang
Thesis title: A measurement system for intraoral muscle pressure.
(GPA:90.9/100, Rank: 8/160)

WORK
EXPERIENCE

Hewlett Packard Labs, Palo Alto, CA, US.
Summer Research Intern; **Jun. 2016 - Sep. 2016**
Mentors: Dr. M. Ashkan Seyedi and Dr. Marco Fiorentino
Developed behavioral optical and electrical models for silicon microring modulators, filters and switches. Performed automatic wafer testing using Python.

HP Labs, Palo Alto, CA, US.
Summer Research Intern; **Jun. 2015 - Sep. 2015**
Mentors: Dr. Chin-Hui (Janet) Chen and Dr. Ray Beausoleil
Measured high speed eye diagrams and developed SPICE-compatible dynamic models for silicon microring modulators.

HP Labs, Palo Alto, CA, US.
Summer Research Intern; **Jun. 2014 - Sep. 2014**
Mentors: Dr. Chin-Hui (Janet) Chen and Dr. Ray Beausoleil
Automated the testing of nanophotonic devices on wafers. Characterized and compactly modeled optical and electrical properties of the nanophotonic devices.

Siemens (China) Corporate Technology, Beijing, China
Summer Intern; **Jul. 2011 - Aug. 2011**
Mentors: Dr. Jianhui Xing and Dr. Yue Zhuo
Developed a tuning tool using C# for a servo motor targeting M3 market. Designed software GUI layout, configuration wizard flow, and USB connection.

SELECTED
PUBLICATIONS

R. Wu, Y. Wang, Z. Zhang, C. Zhang, C. L. Schow, J. E. Bowers, and K.-T. Cheng, "Compact modeling and circuit-level simulation of silicon nanophotonic interconnects", in *Design, Automation and Test in Europe (DATE)*, 2017.

R. Wu, C.-H. Chen, M. A. Seyedi, T.-C. Huang, M. Fiorentino, R. G. Beausoleil, and K.-T. Cheng, "Large-signal model for small-size high-speed carrier-injection silicon microring modulator" in *OSA Integrated Photonics Research, Silicon, and Nano-Photonics Conference (IPR)*, 2016

R. Wu, C.-H. Chen, T.-C. Huang, R. G. Beausoleil, and K.-T. Cheng, "Spatial pat-

tern analysis of process variations in silicon microring Modulators” in *IEEE Optical Interconnect Conf.*, 2016

R. Wu, C.-H. Chen, T.-C. Huang, K.-T. Cheng, and R. G. Beausoleil, “20 Gb/s Carrier-injection silicon microring modulator with SPICE-compatible dynamic model” in *Int’l Conf. on Photonics in Switching (PS)* (Post Deadline Paper), 2015

S. Feng, K. Shang, J. Bovington, **R. Wu**, B. Guan, K.-T. Cheng, J. E. Bowers, and S.J.B. Yoo, “Athermal silicon ring resonators clad with titanium dioxide for 1.3 μm wavelength operation”, *Optics Express*, 2015

R. Wu, C.-H. Chen, C. Li, T.-C. Huang, F. Lan, C. Zhang, Y. Pan, J. E. Bowers, R. G. Beausoleil, and K.-T. Cheng, “Variation-aware adaptive tuning for nanophotonic interconnects” in *IEEE/ACM Int’l Conf. On Computer Aided Design (ICCAD)*, 2015

R. Wu, C.-H. Chen, J. Fedeli, M. Fournier, K.-T. Cheng, and R. Beausoleil, “Compact models for carrier-injection silicon microring modulators”, *Optics Express*, 2015

J. Bovington, **R. Wu**, K.-T. Cheng, and J. E. Bowers, “Thermal stress implications in athermal TiO_2 waveguides on a silicon substrate”, *Optics Express*, 2014

HONORS AND AWARDS

ACM DAC PhD Forum Travel Grant, 2016

UCSB PhD Student Travel Grant, 2016

National Scholarship for Encouragement (top 5%), 2011

Second Prize in Electronic Design Competition in Tsinghua University, 2010

National Scholarship for Encouragement (top 5%), 2010

First Prize in China Physics Olympiads, 2007