

# Michelle Chen

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## EDUCATION

### **Stanford University** || 2015-Present

- ❖ M.S. Materials Science & Engineering
- ❖ Ph.D. candidate in the Department of Materials Science & Engineering

### **University of California, Berkeley** || 2011-2015

- ❖ B.S. Materials Science & Engineering
- ❖ B.S. Electrical Engineering & Computer Sciences

## RESEARCH

### **Advisor: Prof. Eric Pop, Stanford Electrical Engineering** || 2016-Present

- ❖ CVD growth and characterization of monolayer graphene and hexagonal BN
- ❖ Fabrication of suspended 2D material platform for device applications and thermal characterization

### **Advisor: Prof. Junqiao Wu, UC Berkeley Materials Science & Engineering** || 2013-2015

- ❖ Dry elastomer stamp techniques for suspending and transferring 2D materials onto patterned and flexible substrates
- ❖ Mechanical and photoluminescent characterization of 2D materials using AFM and Raman spectroscopy

## PRESENTATIONS

1. **M. Chen**, M. Muñoz Rojo, F. Lian, E. Pop, "Thermal Switching with Collapsible Graphene Membranes," *MRS Spring Meeting*, Apr 2017, Phoenix AZ.
2. **M. Chen**, M. Muñoz Rojo, F. Lian, E. Pop, "Thermal Switching with 2D Materials," *Stanford SystemX Alliance Fall Meeting*, Nov 2016, Stanford CA.

## PUBLICATIONS

1. K. Liu, C.-L. Hsin, D. Fu, J. Suh, S. Tongay, **M. Chen**, Y. Sun, A. Yan, J. Park, K.-M. Yu, W. Guo, H. Zheng, D. Chrzan, J. Wu, Self-passivation of point defects: effects of high-energy particle irradiation on elastic modulus of multilayer graphene, *Adv.Mat.*, 27, 6841 (2015).
2. K. Liu, Q. Yan, **M. Chen**, W. Fan, Y. Sun, J. Suh, D. Fu, S. Lee, J. Zhou, S. Tongay, J. Ji, J.B. Neaton, J. Wu, Elastic Properties of Chemical-Vapor-Deposited Monolayer MoS<sub>2</sub>, WS<sub>2</sub>, and Their Bilayer Heterostructures, *Nano Lett.*, 14, 5097 (2014).
3. Y. Sun, K. Liu, X. Hong, **M. Chen**, J. Kim, S. Shi, J. Wu, A. Zettl, F. Wang, Probing Local Strain at MX<sub>2</sub>-Metal Boundaries with Surface Plasmon Enhanced Raman Scattering, *Nano Lett.*, 14, 5329 (2014).

## AWARDS

### **Winner- NSF Graduate Research Fellowship** || 2017

### **Finalist- Paul and Daisy Soros Fellowship for New Americans** || 2017

## LEADERSHIP

### **President of Eta Kappa Nu, Mu Chapter** || 2015

- ❖ Headed the award-winning UC Berkeley chapter of the national IEEE HKN Electrical and Computer Engineering honors society
- ❖ Secured and managed a \$35,000 budget from corporate and departmental sponsors to fund continued services to the department.
- ❖ Advanced student welfare with free drop-in tutoring, and professional networking events

### **LeaderShape Institute** || 2014

- ❖ Selected to attend the national, intensive six-day leadership development program to develop skills related to community building, identifying and communicating a vision, goal setting, leading with ethics and integrity, inclusive leadership, team dynamics, behavioral styles, emotional intelligence, and group decision making

## TEACHING

### **Undergraduate Instructor, UC Berkeley Department of Electrical Engineering** || Summer 2014

- ❖ Course Instructor for EE40: Introduction to Microelectronic Circuits
- ❖ Supervised laboratory-based discussions that instructed students in the practical components and applications of microelectronic circuits
- ❖ Collaborated with course staff to design course material, including a series of seven modular labs and a cumulative final project

## SKILLS

CVD growth, wet/dry thin film transfer methods, optical photolithography, direct write lithography, e-beam evaporation, reactive ion etching, Scanning Electron Microscopy (SEM), Focused Ion Beam (FIB), Atomic Force Microscopy (AFM), Raman spectroscopy, COMSOL Multiphysics, AutoCAD, MATLAB, Python, Java