

# Resume of Sui, Shuo

E-mail: [ssui@umass.edu](mailto:ssui@umass.edu)

DOB: 12/03/1990

Work Address: N260A Life Science Laboratories, 240 Thatcher Road, Amherst, MA, 01003, US

---

## Status

---

- 3<sup>rd</sup> Year PhD Student in the Department of Chemical Engineering at University of Massachusetts Amherst

## Education

---

- Bachelor of Engineering, Biochemical Engineering, East China University of Science and Technology  
Final GPA 3.69/4.00 Sep 2009 - Jul 2013
- PhD Student, Chemical Engineering, University of Massachusetts Amherst  
Research Focus: Microfluidics platforms for crystallography Sep 2014 - Present

## Research Projects

---

**Undergraduate Student Research Program** Mar 2011- Feb 2012

Research on thermostable Xylanase and  $\beta$ -glucosidase from *Dictyoglomus turgidum*,  
(Advisor: Dr. Xiaoyan Zhang)

**National University Student Innovation Program** Sep 2011- Sep 2012

Research on regulation mechanism of AOX promoter in *Pichia pastoris*,  
(Advisor: Prof. Xiangshan Zhou; funded by the government of Shanghai)

**Graduation Thesis** Nov 2012- Jun 2013

Use ultra scale-down (USD) ultrafiltration device to mimic lab-scale ultrafiltration for separating monoclonal antibodies  
(Advisor: jointly supervised by Dr. Yue Hugh Guan of ECUST and Dr. Zhou of University College London)

**PhD Independent Research** Jan 2015- Present

Develop high-throughput microfluidic platforms for time-resolved crystallography  
(Advisor: Prof. Sarah Perry; supported by the Department of Chemical Engineering, UMass Amherst)

### **Materion Large Area Coating (MLAC) Collaborating Project**

Characterize electrochemical responses of electrodes coated with multi-composition alloys  
(Advisor: Prof. Sarah Perry of UMass Amherst and Mr. Ethan Fontaine of MLAC; funded by MLAC)

## Work Experience

---

**Junior Researcher** Aug 2013- Jun 2014

Miniaturization of downstream micro- and ultra-filtration processing for biopharmaceuticals

Employer/ Professor: Prof. Yue Hugh Guan

Location: No 130, Meilong Rd, Shanghai, 200237, P. R. China

Cooperative institution: Shanghai Sunny Hengping Scientific Instrument Co., Ltd, China; Biberach University of Applied Sciences, Germany

### **Research Assistantship**

Jan 2015 - Present

Ultra-thin microfluidics platform for high throughput analyses of time-resolved structural analysis of protein dynamics

Employer/ Professor: Prof. Sarah Perry in the Department of Chemical Engineering, University of Massachusetts Amherst

Location: N260A Life Science Laboratories, 240 Thatcher Road, Amherst, MA, 01003, US

### **Teaching Assistantship**

Course: CHEM-ENG444-SEC01 Chem Process Design I Fall 2015

Instructor: Rolf Jentoft

Location: 154D Goessmann Laboratory, 686 North Pleasant St, Amherst, MA, 01003 US

Sep 2015- Dec 2015

Course: CHEM-ENG590E-SEC01 Microfluidics and Analysis Spring 2016 and Spring 2017

Instructor: Sarah Perry

Location: LSL N410, 240 Thatcher Rd, Amherst, MA, 01003 US

Feb 2016 – May 2016, Feb 2017- May 2017

### **Conference Presentation**

---

Shuo Sui & Yue Hugh Guan. Filtration technology miniaturization for rapid biopharmaceutical process development. *International Symposium on Biocatalysis and Biosynthetic Engineering 2013 (ISBBE 2013)*. Shanghai, China, 2013.

Shuo Sui & Sarah Perry Graphene based microfluidics for serial crystallography. *International Conference on the Crystallization of Biological Macromolecules 2016 (ICCBM 2016)*. Prague, Czech Republic, 2016.

### **Internship**

---

**Shanghai No.1 Biochemical and pharmaceutical Co., Ltd**

Nov 2012- Dec 2012

Technical Assistant (30 hours per week)

- Serve in the power injection workshop to ensure GMP operation of product manufacturing.
- Serve in a Quality Control (QC) laboratory to inspect the quality of raw materials and finished products.

### **Honors and Awards**

---

- 2010 National Scholarship of China
- 2010 East China University of Science and Technology Second-Class Academic Excellence Scholarship
- 2010 Outstanding Student of ECUST
- 2010 Star of Volunteer of Shanghai World Expo
- 2011 Kangdian Scholarship for academic excellence and extra-curriculum activities
- 2011 East China University of Science and Technology First-Class Academic Excellence Scholarship
- 2012 East China University of Science and Technology Second-Class Academic Excellence Scholarship
- 2013 East China University of Science and Technology Second-Class Academic Excellence Scholarship
- 2013 Best Graduation Thesis of ECUST
- 2013 Outstanding Student in Science and Engineering of ECUST

- 2015 PhD Qualifying Exam Passed
- 2016 Completion of crystallization workshop held at SLAC National accelerator Laboratory
- 2016 ICCBM IUCr Poster Award
- 2016 International Conference on the Crystallization of Biological Macromolecules Young Scientist Travel Award

## **Publications**

---

1. S. Sui, Y. Wang, K.W. Kolewe, V. Srajer, R. Henning, J.D. Schiffman, C. Dimitrakopoulos, S.L. Perry, "Graphene-Based Microfluidics for Serial Crystallography," *Lab on a Chip*, (2016) 16, 3082-3096.
2. S. Sui, S.L. Perry, "Microfluidics: From Crystallization to Serial Time-Resolved Crystallography," *Structural Dynamics*, (2017) 4(3), 032202.