

# Ailin Yu

Case Western Reserve University  
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## Education

<b>Case Western Reserve University</b> , Cleveland, Ohio B.S. in Systems and Control Engineering B.S. in Computer Engineering B.A. in Music Performance	2013 – Present
Benedictine College, Atchison, KS	2011-2013

## Professional Employment

Sensing and Interactions Laboratory, Case Western Reserve University, Cleveland, OH.

2015 August to Present – **Undergraduate Research Assistant**

- Optimized functionality and usability of Google Glass program for medical applications
- Analyzed facial recognition algorithms for medical application implementation  
New Generation Power Efficient Computing, Washington State University, Pullman, WA.

2015 May to August – **Undergraduate Research Assistant**

- Designed hardware implementations of machine learning classification mechanisms for dynamic voltage and frequency scaling of voltage and frequency islands

Sopharmia Inc., St Joseph, MO.

2013 May to August – **Lab Research Assistant**

- Characterized enzymes inhibited by potential new antibiotic candidates
- Determined IC<sub>50</sub> and partition ratio-values via stopped time assays using a ultraviolet-visible spectrophotometer.

2013 December to 2014 January – **Lab Research Assistant**

- Performed spectroscopic characterization of a new class of monobactam antibiotic substrate
- Characterized the kinetics of hydrolysis of monobactam substrate by metallo- $\beta$ -lactamases

## Honors and Awards

2015	Annual Concerto Competition Winner
2015	Ioudenitch Summer Piano Academy, Lake Como, Italy
2014	IEEE – Eta Kappa Nu, Zeta Chapter Member
2013-15	Dean's High Honors List, Case Western Reserve University (5 semesters)
2013-17	Case Western Reserve University, Music for Performing Arts Scholarship

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| 2013 | Ioudenitch Summer Piano Academy, St Petersburg, Russia                           |
| 2012 | Ioudenitch Summer Piano Academy, Kona, Hawaii, USA                               |
|      | Naval Academy Summer Seminar   |
| 2011 | Pre College Art Lab Summer Residency, Kansas City Art Institute, Kansas City, MO |

## Languages

Fluent: English

Proficient: Chinese (Mandarin)

## Publications

### • Posters

1. 2015 Summer Undergraduate Research Poster Symposium, presentation by A. Yu; R. Kim P. Partha; S. Behrooz; *Learning to Run Efficiently: A DVFS VFI-Partitioned Multicore Platform.*

### • Peer Reviewed Journals

1. Poffenberger AR; **Yu A**; Zhou N; Yu S; Sutton LD. *A chromogenic monobactam for monobactamase assays* submitted to Journal of Antibiotics.

### • Abstracts

6. 2014 September: 54<sup>th</sup> Interscience Conference on Antimicrobial Agents and Chemotherapy, presentation by A. Poffenberger, **A. Yu**, N. Zhou, K. J. Fischer, S. J. Yu, M. Aitha, H. Yang, M. W. Crowder, L. D. Sutton. *1. Synthesis and Characterization of a Chromogenic Monobactam Substrate for Metallo- $\beta$ -Lactamase Assays.*
5. 2013 September: 53<sup>rd</sup> Interscience Conference on Antimicrobial Agents and Chemotherapy, presentation by L. D. Sutton, S. Yu, M. Yu, **A. Yu**, M. Aitha, H. Yang, M. Crowder, N. Zhou. *Rationally Designed Suicide Inhibitor of NDM-1 with Anti-Bacterial Activity.*
4. 2013 September: 53<sup>rd</sup> Interscience Conference on Antimicrobial Agents and Chemotherapy, presentation by L. D. Sutton, S. **Yu**, **A. Yu**, M. Yu, M. Aitha, M. Crowder, N. Zhou, M. Broderick, G. Carson, A. Knaebel, R. Morphey, R. Murphy, K. Oswald, M. Smilie, L. Thielen, K. Trull, T. Walz, K. and K. Williams. *Mechanism-Based Cephalosporin Inhibitors of Metallo- and Serine-Carbapenemases.*
3. 2012, November, Heartland Undergraduate Biochemistry Forum, University of Kansas Medical Center, presentation by K. Corbella, T. Walz, S. Yu, M. Yu, **A. Yu**, A. Vosbeek, and L. D. Sutton. *Azonide-Like Transition State Structures of Metallo- $\beta$ -Lactamase-Catalyzed Hydrolysis of a Series of Functionalized Cephalosporins.*
2. 2012, October: 47<sup>th</sup> ACS Midwest Regional Meeting, presentation by K. Corbella, T. Walz, **A. Yu**, M. Yu, S. J. Yu, and L. D. Sutton. *Electronic effects on the VIM-2 metallo- $\beta$ -lactamase-catalyzed hydrolysis cephalosporin antibiotics: Change in rate determining step.*
1. 2012, October: Wakarusa Valley ACS Student Research Symposium presentation by K. Corbella, T. Walz, **A. Yu**, M. Yu, S. J. Yu, and L. D. Sutton. *Electronic effects on the VIM-2 metallo- $\beta$ -lactamase-catalyzed hydrolysis cephalosporin antibiotics: Change in rate determining step.*