Daniel Liu

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Education

University of Michigan — Ann Arbor, MI
College of Literature, Science, and the Arts
B.S. in Chemistry — Expected May 2023

College of Engineering
B.S.E. in Computer Science — Expected May 2023

Ross School of Business — Expected May 2024
B.B.A.
Current GPA: 3.9

The University of Toledo — Toledo, OH
Dual enrollment with Ottawa Hills High School
through the College Credit Plus program. — 2016-2019

Work Experience

Mathematics tutoring with the Comprehensive Studies Program — University of Michigan
for MATH105, MATH115, MATH116, and EECS203 — Fall 2019 – Winter 2020
(10 hours / week)

One-to-one chemistry tutoring with peers — University of Michigan
Fall 2019

Mentored two high school students through ACS Project SEED — The University of Toledo
Stuart Wells – St. Francis De Sales High School, Toledo, OH — June-August 2019
Reece Tatchell – Northview High School, Toledo, OH

Research Experience

University of Michigan, Ann Arbor, MI — May 2021 – present
Department of Electrical Engineering and Computer Science
Advisor: Dr. Manos Kapritsos

University of Michigan, Ann Arbor, MI — September 2019 – present
Department of Chemistry
Advisor: Dr. Melanie Sanford

The University of Toledo, Toledo, OH. — March 2017 – August 2019
Department of Chemistry and Biochemistry
Advisor: Dr. Michael Young

The University of Toledo, Toledo, OH. — September 2017 – May 2018
Department of Mathematics
Advisor: Dr. Ekaterina Shemyakova

Publications

- Kapoor, M.; **Liu, D.**; Young, M. C. "Carbon Dioxide Mediated C(sp3)–H Arylation of Amine Substrates." *J. Am. Chem. Soc.* **2018**, *140*, 6818-6822.
- **Liu, D.**; Kapoor, M.; Kennedy, J. F.; Young, M. C. "Carbon Dioxide Mediated ortho C–H Halogenation of Free Benzylamines." *2018 Ohio Inorganic Weekend poster presentation*, November 8, 2018, Ohio University, Athens, OH.
- Kapoor, M.; Chand-Thakuri, P.; Maxwell, J. M.; **Liu, D.**; Zhou, H.; Young, M. C. "Carbon Dioxide-Driven Palladium-Catalyzed C–H Activation of Amines: A Unified Approach for the Arylation of Aliphatic and Aromatic Primary and Secondary Amines." *Synlett* **2019**, *30*, 519-524.
- Young, M. C.; Djernes, K. E.; Payton, J. L.; **Liu, D.**; Hooley, R. J. "Resorcin[4]arenes: A Simple Scaffold to Study Supramolecular Self-Assembly and Host:Guest Interactions for the Undergraduate Curriculum." *J. Chem. Ed.* **2019**, *96*, 4, 781-785.

Honors and Awards

The University of Michigan:

- Summer Undergraduate Research Program Fellowship ($5000 / 10 weeks, chemistry research with Dr. Sanford) — Summer 2020 (planned)

The University of Toledo:

- Biochemistry Award, Department of Chemistry and Biochemistry — 2019
- Physical Chemistry Award, Department of Chemistry and Biochemistry — 2018
- University of Toledo President's Honor List with GPA 4.0 — 2017-18
- Organic Chemistry Award, Department of Chemistry and Biochemistry — 2017
- Lim Sup Award: Outstanding Achievement in Mathematics — 2017
- Certificate of Pi Mu Epsilon, National Honorary Mathematics Society, Ohio Gamma Chapter for Superior Achievement in the Field of Mathematics — 2016
- Certificate of Outstanding Achievement in Chemistry from Department of Chemistry and Biochemistry — 2015

Skills:

- Programming Languages: C++, Swift, Python, HTML/CSS, command prompt
- Operating Systems: MacOS, Windows 10
- Software: Git, Microsoft Office, ChemDraw, MestReNova, MATLAB, XCode
- Chemistry Lab Skills: GC/MS, Column Chromatography, Rotary Evaporator