

Katherine Huang

kat.m.huang@gmail.com | www.katherinehuang.co

Education

University of Massachusetts Lowell (2017—)

- Non-degree courses: Discrete Structures I

Lowell High School (2015—2019 expected)

- Member of Latin Lyceum, an honors program
- Class rank: 2/750
- Unweighted GPA: 3.9/4.0
- Selected courses: AP Statistics (self-study), AP Computer Science (self-study), AP European History, AP Latin

Research Experience

Harvard University | School of Engineering and Applied Sciences (June 2017—)

- Mentored by Evelyn Hu, Gordon McKay Professor of Applied Physics and Electrical Engineering
- Perform and analyze computational simulations of quantum dots and quantum wells
- Improve protocol for selective etching of nanoscale gallium nitride laser cavities
- Conduct annealing experiments and optical characterization of silicon carbide vacancies

University of Massachusetts Lowell | Department of Chemistry (November 2016—May 2017)

- Mentored by Dr. Olga Kononova, postdoctoral scholar at University of California Berkeley, and Dr. Valeri Barsegov, Associate Professor
- Performed and analyzed docking and molecular dynamics simulations of potential inhibitors for botulinum neurotoxin
- Third Place at **Massachusetts State Science and Engineering Fair 2017**

Middlesex Community College (January 2016—March 2016)

- Mentored by Kimberly Gonzalez, Assistant Professor
- Investigated effects of burned polyvinyl chloride on transformation rates in *E. coli*
- **Published in *Journal of Emerging Investigators***
- Honorable Mention at Massachusetts State Science and Engineering Fair 2016

Skills & Languages

- Programming: Python, Java, Javascript, HTML, CSS, bash, git
- Data science & communication: LaTeX, statistics, technical writing
- Computational biology: Autodock Vina, GROMACS, VMD, bioinformatics
- Microbiology: Bacterial growth and isolation, transformation, growth media preparation
- Languages: English, Chinese

Community Service

Mentors in Violence Prevention (October 2016—May 2017)

- Trained by team from Northeastern University to host discussions about sexual abuse
- Led interactive presentations with peers

Activities

- Model United Nations: Secretary-General
- Chess Club & Team: President