

Katherine Huang

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Education

University of Massachusetts Lowell (2017—)

- Non-degree coursework: Discrete Structures I

Lowell High School (2015—2019 expected)

- Member of Latin Lyceum, an honors program
- Class rank: 1/750
- GPA: 3.9/4.0
- Selected coursework: Biology, Chemistry, AP European History, AP Latin, AP Statistics (self-study), AP Computer Science (self-study)

Research

Molecular docking and forced unbinding simulations of botulinum neurotoxin type A light chain inhibitors

- Mentored by Dr. Olga Kononova and Dr. Valeri Barsegov of University of Massachusetts Lowell
- Third Place at Massachusetts State Science and Engineering Fair 2017

Effect of burned PVC on rate of transformation in *E. coli*

- Mentored by Ms. Kimberly A. Gonzalez of Middlesex Community College
- Manuscript accepted to *Journal of Emerging Investigators*
- Honorable Mention at Massachusetts State Science and Engineering Fair 2016

Skills

- Computational biology: Autodock Vina, GROMACS, Visual Molecular Dynamics
- Microbiology: Bacterial growth and isolation, transformation, growth media preparation
- Programming: HTML/CSS (advanced), Javascript (intermediate), Java (basic), bash
- Data analysis and communication: XMGrace, statistics, technical writing
- Languages: English (native), Mandarin Chinese (intermediate)

Community Service

Mentors in Violence Prevention (2016—2017)

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

The Compass Program (2016)

- TA for summer enrichment class for incoming high school freshmen

Activities

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