

# Katherine Huang

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[github.com/katavie](https://github.com/katavie)

## Education

### **University of Massachusetts Lowell** (2017-2018)

- Non-degree courses: Discrete Structures I, Honors Chemistry I-II, Chemistry I-II Lab

### **Lowell High School** (2015-2019 expected) (Honors Program)

- Class rank: 2/800; unweighted GPA: 4.0/4.0
- Advanced Placement courses: Statistics (self-study), Computer Science A (self-study), Calculus BC, Physics 1, US History, European History, Latin

## Research Experience

### **Harvard University** | Supervisor: Prof. Evelyn Hu (Jun-Aug 2017)

- Performed and analyzed computational simulations of band structures of quantum dots and wells
- Refined protocol for selective etching of nanoscale semiconductor laser cavities
- Gained familiarity with cleanroom nanofabrication facility and scanning electron microscopy

### **University of Massachusetts Lowell** | Supervisor: Prof. Valeri Barsegov (Nov 2016-Apr 2017)

- Ran docking and molecular dynamics simulations of potential drugs for botulism

### **Middlesex Community College** | Supervisor: Prof. Kimberly Gonzalez (Jan-Mar 2016)

- Investigated effect of burned PVC on *E. coli* transformation and antibacterial resistance
- [Published](#) in **Journal of Emerging Investigators**

## Activities

### **MAHacks** ([mahacks.com](http://mahacks.com)) | Co-Director (Apr 2018-), Organizer (Sep 2017-)

- Craft vision for high school hackathon that encourages long-term, impactful projects by connecting winners to mentorship, incubators/accelerators, and experiential learning opportunities
- Host weekly calls, maintain website, build sponsor relations, handle financial and event logistics

### **Science & Us** ([scienceandus.org](http://scienceandus.org)) | Founder and Director (Feb 2018-)

- Founded event to teach high schoolers about science communication and careers in making complex ideas engaging and accessible to the public
- Recruit presenters from Harvard, MIT, Tufts, Boston University, and STAT News; advertise to students

### **FIRST Robotics Competition Team 5962** | Co-Captain (May 2018-)

### **National High School Journal of Science** | Peer Reviewer (Apr 2018-)

## Honors and Awards

### **National Junior Science & Humanities Symposium** | Oral Presentation Finalist

### **National Center for Women & IT** | Aspirations in Computing Massachusetts Winner

### **ComSciCon National Workshop** (selective science communication event for grad students) | Invited Guest

### **Massachusetts State Science & Engineering Fair** | Third Place (2017), Honorable Mention (2016)

### **SheHacks, MIT Blueprint, CodeDay Boston, MetroHacks Women, MAHacks II** | Hackathon Winner/Runner-Up

### **Business As Usual** (Dracut Access TV Show) | Interviewee

### **Model United Nations Club, Chess Club & Team** | President

### **National Latin Exam** | Perfect Paper (2016), Gold Medal (2015-2017)

**Programming Languages/Tools:** R (Bioconductor, ggplot2, machine learning), Python (Biopython, Django), Javascript (D3.js), Java, HTML, CSS, bash, LaTeX, git