

# EDWARD SUN

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es2k.github.io

## EDUCATION

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**University of Michigan, Ann Arbor** *September 2018 - May 2021*  
*Computer Science and Math; EECS 442: Computer Vision, 445: Machine Learning* GPA: 4.0/4

**Thomas Jefferson High School for Science and Technology** *September 2014 - June 2018*  
*Computational Physics Research* GPA: 4.4/4

## RESEARCH

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### **Broken Relationship of Mobile User Intentions and Permission Control of Shared System Resources**

Hao Wu, Zheng Qin, Xuejin Tian, **Edward Sun**, Fengyuan Xu, Sheng Zhong.  
In *IEEE Conference on Dependable and Secure Computing (DSC 2019)*.

### **Towards Universal Evaluation of Image Annotation Interfaces**

Andrew Vernier, Jean Song, **Edward Sun**, Allison Kench, Walter Lasecki.  
In *Proceedings of the ACM Symposium on User Interface Software and Technology (UIST 2019)*.

### **PECAM**

Cycle-consistent GAN for steganography in security (*Under review ACM MobiCom 2020*).

### **EMO**

Fast and accurate emotion recognition on eyewear devices (*Under review ACM MobiCom 2020*).

## WORK EXPERIENCE

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**Amazon AWS** *May 2019 - August 2019*  
*Software Development Engineer Intern* Herndon, VA

**Artificial Intelligence Lab, University of Michigan** *Dec 2018 - Present*  
*Research Assistant* Ann Arbor, MI

**State Key Laboratory of Novel Software Technology, NJU** *June 2017 - September 2019*  
*Research Intern* Nanjing, China

## ACTIVITIES AND PROJECTS

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- **UM Programming Team:** Competing in the International Collegiate Programming Contest (ICPC).
- **Michigan Hackers:** Launched the React Native team to teach programmers mobile app development.
- **Real-Time Crowd Analytics with Group Emotion Recognition:** Achieved accuracies 21.17% higher than baseline and speeds 30× faster than VGG-Face LSTM models.
- **StockWise, MHacks 11:** Applied ML and sentiment analysis to create a stock market assistant that predicted price movement through TensorFlow and GCP. 1st place Goldman Sachs competition.
- **MIT Battlecode 2018:** Competed in a strategy contest where teams wrote AI combat, pathfinding, and communication algorithms. Quarterfinalist.
- **Large Band Gap Topological Insulators of Bi:** Modeled spin-orbit coupling in quantum spin hall effect of 2D bismuth TIs. Presented to visitors from international research institutions.

## AWARDS

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Siemens Competition Semifinalist *2016, 2017*  
USA Computer Olympiad Gold Division *2017*  
American Invitational Math Examination Qualifier *2015 - 2017*