

# EDWARD SUN

edwsun@umich.edu

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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**Towards Universal Evaluation of Image Annotation Interfaces**

A.M. Vernier, J.Y. Song, **E. Sun**, A. Kench, W.S. Lasecki.

*In Proceedings of the ACM Symposium on User Interface Software and Technology (UIST 2019).*

**PECAM**

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

**EMO**

Emotion recognition on eyewear devices (*Under review ACM MobiCom 2020*).

**User Anomaly Detection**

Deep learning model for Android permissions control (*Under review IEEE DSC 2019*).

## WORK EXPERIENCE

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**Amazon Web Services**

*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 - Present*

*Research Intern*

*Nanjing, China*

## ACTIVITIES AND PROJECTS

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- **University of Michigan Programming Team:** Competing in the International Collegiate Programming Contest (ICPC 2019).
- **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*