

MSC 682  
1200 E. California Blvd.  
Pasadena, CA 91126

**Jeffrey J. Ma**  
[jma@caltech.edu](mailto:jma@caltech.edu)  
(408) 406-4015

U.S. Citizen  
4660 Metropolitan Way  
San Jose, CA 95135

---

## GOAL

- Looking for 2020 summer internships or research opportunities in computer science or economics.

---

## EDUCATION

### California Institute of Technology (Caltech)

2018 – Present

- GPA: 4.13. Majoring in Computer Science and Economics, B.S. expected 2022.
- Relevant Coursework: **CS 155** (Machine Learning, Python), **CS 4** (Functional Programming, OCaml), **CS156A** (Learning Systems, Python), **ACM 104** (Applied Linear Algebra, MATLAB), **CS 24** (Computing Systems, C); **CS 21** (Decidability and Tractability); **CS 2** (Data Structures, Java); **Ma/CS 6A** (Discrete Mathematics), **CS 11** (Computer Language Lab, C)

---

## WORK EXPERIENCE

### Stanford University, *Research Fellow*

Summer 2019 – Present

- Selected for an undergraduate research fellowship at the **Magnetic Resonance Systems Research Laboratory (MRSRL)** at Stanford Electrical Engineering. Working on developing a novel deep-learning model to identify motion artifacts in pediatric MRI and provide data-informed suggestions to MR technicians.

### California Institute of Technology, *Teaching Assistant*

Summer 2019 – Present

- Serving as a teaching assistant for both **CS24 (Computing Systems, Fall 2019)** and **CS2 (Data Structures, Winter 2020)**. Responsibilities include developing assignments, grading, and holding weekly office hours.

### Stanford University, *Research Intern*

Summer 2017 (extended to July 2018)

- Selected for the **2017 Stanford Institutes of Medicine Summer Research Program (SIMR)**. Developed a machine-learning classifier for diagnosing Autism Spectrum Disorder based on a patient's ability to recognize emotions and their measured level of facial engagement. Submitted a paper currently under review at JMIR.

### Intel Corporation, *Engineering Intern*

Summer 2016 (extended to Dec. 2016)

- Built hardware prototypes and developed Android apps to connect to them and demonstrate their functionalities. Used Google's Location API and Bluetooth Low Energy (BLE) wireless communication and gained experience with electrical circuit design, lab equipment, and the Arduino hardware kit.

---

## AWARDS

- **Gee Family Poster Competition Finalist** – 8 finalists selected for excellence in scientific oral communication.
- **Andy Grove Scholarship for Intel Employees' Children Award** – selected from over 2000 undergraduate applicants.
- **Bellarmino College Preparatory Computer Science Award** – 2 students selected from the student body for excellence in computer science; **Bellarmino Matteo Ricci Award** – 10 students selected for embodying Jesuit ideals and contributing to community inside and outside of the Bellarmino classroom.
- **2-Time Southern California Intercollegiate Athletic Conference (SCIAC) Swimming Championship Finalist** in the 100-yd and 200yd Breaststroke; **1-Time SCIAC All-Academic Team Member**.
- **2-Time American Invitational Mathematics Exam (AIME) qualifier** – scored in the top 5% of AMC12 participants nation-wide.
- **National Merit Finalist and Scholarship recipient; National AP Scholar.**

---

## SKILLS

- **Programming languages:** Python, Java, C, x86-64 Assembly, PHP, SQL, Mathematica.
- **Machine Learning:** TensorFlow, Keras, NumPy, sklearn.
- **Graphic design and Video Editing:** Adobe Illustrator, Photoshop, InDesign.
- **Video editing and animation:** Adobe Premiere Pro, Adobe After Effects.

---

## OTHER ACTIVITIES & INTERESTS

- **Self-built a high-performance desktop PC** – ordered and assembled parts; stress-tested the finished PC.
- **Caltech Admissions Ambassador and Frosh Camp Counselor**– selected by the Admissions and Deans' Offices to serve as an undergraduate representative, leading campus tours and holding office hours for prospective families, as well as serving as an orientation leader for incoming Caltech freshmen.
- **Caltech Interhouse Athletics Manager** – organizing and scheduling interhouse sport competitions between the eight undergraduate residential Houses.