

Jeffrey Ma

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🏠 U.S. Citizen

EDUCATION

CALTECH

GPA 4.2 | Expected Grad: 2022

B.S. in Computer Science + BEM

(Business, Economics, and Management)

COURSEWORK

UNDERGRADUATE

Probability Models

Communication Networks

Algorithms

Machine Learning and Data Mining

Functional Programming

Quantitative Risk Management

Learning Systems

Applied Linear Algebra

Computing Systems

Decidability and Tractability

Data Structures

Discrete Mathematics

AWARDS

RESEARCH

- 2020 Hummel-Gray Travel Fund award
- 2020 Housner Student Discovery Fund recipient
- Gee Family Poster Competition Finalist

ACADEMICS

- Bellarmine College Prep CS Award
- 2-Time American Invitational Mathematics Exam (AIME) Qualifier
- National Merit Scholarship recipient

ATHLETICS

- 4-Time SCIAC Swimming Championship
- Finalist in the 100-yd and 200-yd Breast
- 2-Time SCIAC All-Academic Team

SKILLS

- Python • Java • C/C++ • OCaml •
- x86-64 Assembly • MATLAB •
- Mathematica • Haskell • Git •
- TensorFlow • sklearn • NumPy •
- pandas • Illustrator • Photoshop •

LINKS

[in linkedin.com/in/jma18](https://www.linkedin.com/in/jma18)

github.com/18jeffreyma

EXPERIENCE

NURO | INCOMING SOFTWARE ENGINEERING INTERN

📅 Spring 2021

📍 Mountain View, CA

CITADEL | INCOMING SOFTWARE ENGINEERING INTERN

📅 Summer 2021

📍 New York, NY

GOOGLE | SOFTWARE ENGINEERING INTERN

📅 Summer 2020

📍 Mountain View, CA

- Worked on the Google Brain team on TensorFlow Extended (TFX), an end-to-end platform for automatically deploying ML models in production. Implemented component improvements to support continuous pipeline and asynchronous component execution and explored support for data streaming. Received offer to return for Summer 2021.

CALTECH | HEAD TEACHING ASSISTANT

📅 May 2019 – Present

📍 Pasadena, CA

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

STANFORD UNIVERSITY | RESEARCH FELLOW

📅 Summer 2019 (extended to January 2020)

📍 Stanford, CA

- Selected for an undergraduate research fellowship at the Magnetic Resonance Systems Research Laboratory (MRSRL). Developed a novel deep-learning model to identify motion artifacts in pediatric MRI and provide data-informed suggestions to MRI technicians. Paper accepted and published to the 2020 IEEE International Symposium on Biomedical Imaging (ISBI'20).

STANFORD UNIVERSITY | RESEARCH INTERN

📅 Summer 2017 (extended to Summer 2018)

📍 Stanford, CA

- Selected for the 2017 Stanford Institutes of Medicine Summer Research Program (SIMR). Developed a machine-learning classifier to diagnose Autism Spectrum Disorder based on a patient's facial engagement and ability to recognize emotions. Paper accepted and published in Journal of Medical Internet Research (JMIR).

PUBLICATIONS

DIAGNOSTIC IMAGE QUALITY ASSESSMENT AND CLASSIFICATION IN MEDICAL IMAGING: OPPORTUNITIES AND CHALLENGES. (FIRST AUTHOR)

J. Ma, U. Nakarmi, et al. ([DOI: 10.1109/ISBI45749.2020.9098735](https://doi.org/10.1109/ISBI45749.2020.9098735)).

Published to the IEEE International Symposium on Biomedical Imaging (ISBI 2020).

TOWARD CONTINUOUS SOCIAL PHENOTYPING: ANALYZING GAZE PATTERNS IN AN EMOTION RECOGNITION TASK FOR CHILDREN WITH AUTISM THROUGH WEARABLE SMART GLASSES. (CO-AUTHOR)

A. Nag, et al. J Med Internet Res 2020;22(4):e13810 ([DOI: 10.2196/13810](https://doi.org/10.2196/13810))

Published to the Journal of Medical Internet Research (JMIR).

OTHER INTERESTS

CALTECH ADMISSIONS AMBASSADOR AND FROSH CAMP COUNSELOR – selected by the Admissions and Deans' Offices to serve as an undergraduate representative, leading campus tours and organizing freshmen orientation.