MATTHEW T. SIT

San Francisco Bay Area, CA | mattsit.github.io | linkedin.com/in/matthewsit

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UNIVERSITY OF CALIFORNIA - BERKELEY **Berkeley, CA**

B.S. Electrical Engineering & Computer Sciences; Minor in Bioengineering (GPA: 3.785) Aug 2019
  Deep Neural Networks, Machine Learning, Data Science, Computational Biology Algorithms, Algorithms.
  Probability for Data Science, Multivariable Calculus, Discrete Mathematics, Linear Algebra & Differential Equations.

INDUSTRY

GOOGLE **San Bruno, CA**

Software Engineer III (L4) - Engineering Productivity for YouTube Mobile UI Frameworks (SWE II prior) Sep 2019 – present
- Replaced a decade-old testing strategy infeasible for modern-scale development. Unblocked key framework feature launch.
- Led design, implementation, and adoption of new tools, infrastructures, and best practices. Saved 125 years of developer time.
- Engaged in student outreach: manager, tech lead of 2 STEP interns; coached 4 summer CSSI instructors, reaching 120 freshmen.

CITADEL **Chicago, IL**

Software Engineering Intern Jun 2018 – Aug 2018
- Modularized market connector into dynamic-link libraries: improved build time, compiler independence, language extensibility.

RESEARCH APPRENTICESHIPS

SUSANA T. L. CHUNG – UC Berkeley School of Optometry Jan 2017 – Sep 2019
- Developed a Matlab computer vision toolkit to extract retinal traces from videos using cross-correlation; paper in progress.
- Refined core algorithm from a 42 to 3 second runtime by downsampling, adaptively searching, and re-writing bottlenecks in C++.

KEVIN BENDER – UC San Francisco Jan 2018 – May 2019
- Optimized neuronal model by exploring parameter sensitivity and evaluating model scoring functions using correlation analyses.

PAMELA J. YEH – UC Los Angeles Jun 2014 – Aug 2014, Jun 2015 – Jul 2015

CONFERENCE PRESENTATIONS

1. R Ben-Shalom, et al. "Novel approaches to optimize neuronal computational models." Org. for Comp. Neurosciences **(2018)**.
2. M Agaoglu, et al. "ReVAS: An open-source tool for eye motion extraction from retinal videos obtained with scanning laser ophthalmoscopy." Association for Research in Vision and Ophthalmology (ARVO) Annual Meeting Abstract **(2018)**.

PUBLICATIONS

1. N Singh, et al. "A Systematic Review of Differential Rate of Use of the Word "Evolve" Across Fields." PeerJ **(2017)**.
2. N Singh, et al. "How Often Are Antibiotic-Resistant Bacteria Said to "Evolve" in the News?" PLOS One **(2016)**.

TEACHING

EECS DEPARTMENT – UC Berkeley **Berkeley, CA**

Lecturer (Data Structures, CS 61B) (Teaching Assistant / Graduate Student Instructor and Academic Intern prior) Jun 2016 – Jul 2019
- 1300+ hours of experience teaching Java, data structures, and problem-solving strategies to classes as large as 1600 students.
- Spring 2018, Machine Learning course (CS 189): Led academic intern team, teaching monthly exam-prep sessions to 50 students.

BERKELEY ENGINEERS AND MENTORS (BEAM) **Berkeley, CA**

Director of Curriculum (Curriculum Staff and Mentor prior) Feb 2016 – May 2018
- Led 9 staff to design 10-week hands-on course for 100 mentors teaching 300 students across 17 local elementary/middle schools.
- Pioneered the organization's first Chromebook lesson, guiding 300 students to control pianos of bananas using Snap and Arduino.

HONORS & AWARDS

- **Google Performance Latency** Q3 2021 (Gold)
- **Google Code Health** (2x) Q1 2021 (Platinum) & Q3 2021 (Platinum)
- **YouTube Code Excellence** (2x) H1 2020 & H2 2020
- **Outstanding Graduate Student Instructor**, UC Berkeley Graduate Division 2020
- **Leadership Scholarship**, Cal Alumni Association, UC Berkeley (2x) Aug 2017 & Aug 2018
- **Eta Kappa Nu** (HKN: Electrical and Computer Engineering Honor Society), UC Berkeley Feb 2017
- **Bioengineering Honor Society**, UC Berkeley Sep 2016