MATTHEW T. SIT

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UNIVERSITY OF CALIFORNIA - BERKELEY   **Berkeley, CA**
B.S. Electrical Engineering & Computer Sciences (GPA: --redacted--)   *Anticipated May 2019*
   Machine Learning (CS189), Algorithms (CS170), Data Structures (CS61B).
   Probability for Data Science (Stat140), Multivariable Calculus (Math53), Linear Algebra/Differential Equations (Math54).
   Biophysical Chemistry (ChemC130), Biological Transport (BioE104), Genetic Design Automation (BioE134).

INDUSTRY

CITADEL LLC   **Chicago, IL**
Software Engineering Intern   *June 2018 – August 2018*
- Minimized re-build time of mission-critical market connector data system using modularized, dynamically-linked library plugins.
- Enhanced business utility of market system with C/C++ bridges that provide compiler independence and language extensibility.

RESEARCH

DR. KEVIN BENDER'S LAB – University of California, San Francisco   **San Francisco, CA**
Apprentice   *January 2018 – Present*
- Optimized neuronal model by exploring parameter sensitivity and evaluating model scoring functions using correlation analyses.

DR. SUSANA CHUNG'S LAB – UC Berkeley School of Optometry   **Berkeley, CA**
Apprentice   *January 2017 – Present*
- Developed a Matlab computer vision algorithm to extract retinal traces from videos using cross-correlation and interpolation.
- 11,000 lines of code written. Benchmarking with patient videos completed and currently preparing methods paper for publication.

DR. PAMELA J. YEH'S LAB – University of California, Los Angeles   **Los Angeles, CA**
Apprentice   *June 2014 – August 2014, June 2015 – July 2015*
- Found concentration ranges that provoke bacterial mutation to slow evolution of drug resistance in Streptomycin and Cefoxitin.
- Determined triple drug combination interaction types by comparing bacterial growth to those of single and pairwise combinations.

PUBLICATIONS

1. N Singh, **MT Sit**, MK Schutte, GE Chan, JE Aldana, D Cervantes, CH Himmelstein, & PJ Yeh. "A Systematic Review of Differential Rate of Use of the Word "Evolve" Across Fields." *PeerJ* **(2017)**.
2. N Singh, **MT Sit**, DM Chung, AA Lopez, R Weerackoon, & PJ Yeh. "How Often Are Antibiotic-Resistant Bacteria Said to "Evolve" in the News?" *PLoS One* **(2016)**.

TEACHING

EECS DEPARTMENT – UC Berkeley   **Berkeley, CA**
Undergraduate Student Instructor (Data Structures, CS61B)   *June 2016 – Present*
- 725+ hours of experience teaching Java, data structures, and problem-solving strategies to sections of 35-45 students.
- In Spring 2018: Head of Machine Learning (CS 189) academic intern team, teaching monthly exam-prep sessions to 50 students.

BERKELEY ENGINEERS AND MENTORS (BEAM)   **Berkeley, CA**
Director of Curriculum   *February 2016 – May 2018*
- Reduced 6-10 hour mentor matching process to 1 hour by implementing Stable Marriage through Google Scripts/Forms/Sheets.
- Pioneered the organization's first Chromebook lesson, guiding 300 students to control pianos of bananas using Snap and Arduino.
- Designed 10-week course, leading 9 in producing an interactive curriculum that equips mentors to best inspire their students.

HONORS & AWARDS

- **ETA KAPPA NU (HKN) – UC Berkeley** (Electrical and Computer Engineering Honor Society)   *February 2017*
- **BIOENGINEERING HONOR SOCIETY – UC Berkeley**   *September 2016*
- **LEADERSHIP AWARD, CAL ALUMNI ASSOCIATION – UC Berkeley**   *August 2017*

SKILLS

- Java (Strong), Python (Strong), Matlab (Strong), Machine Learning (Proficient), R (Proficient), C and C++ (Proficient), JavaScript (Familiar), SQL (Familiar), Git (Strong), HTML (Strong), CSS (Strong), jQuery (Familiar), Microsoft Office (Strong).
- **PASTIMES:** Teaching, Trumpet, Singing, Graphic Design/UI/UX, Cooking/Baking, Bouldering.