Enze Chen (he/him)

enze.chen1@gmail.com | (650) 653-1650 | https://enze-chen.github.io

EDUCATION

University of California, Berkeley (2019–2024, anticipated)
Ph.D. | Materials Science and Engineering (MSE) | GPA: 4.000

Stanford University (2014–2018)
M.S. | Computational and Mathematical Engineering (CME) | GPA: 3.970
B.S. | Materials Science and Engineering (MSE), with Honors, with Distinction | GPA: 3.965

SKILLS AND AWARDS

- 2020 National Science Foundation Graduate Research Fellowship (NSF GRFP) worth a total of $138,000.
- Scientific computing and machine learning (ML) expertise for physical science problems.
- Experienced in Python and MATLAB. Working knowledge of C++ and Linux systems/tools.
- 2022 UC Berkeley Outstanding Graduate Student Instructor Award.

RESEARCH EXPERIENCE

Ph.D. Candidate co-advised by Prof. Mark Asta and Dr. Timofey Frolov (Berkeley, CA)   08/2019—present

- Use atomistic simulations (DFT and MD) and materials informatics (MI) to study interfaces in alloys.
- Used high-throughput DFT calculations and ML for superalloy design. E. Chen et al. *npj Comp. Mater.* 2019.
- Performed grand canonical structure search for twin boundary phases in Ti as part of an ONR project. Co-authored manuscript under review at *Nature Materials* (arXiv preprint).

Summer Intern at Lawrence Livermore National Laboratory (Livermore, CA)   Summer 2020 and 2022

- 2020 MaCI intern working on Ni-based superalloy design. Presented at LLNL SLAM and TMS 2021.
- 2022 CCMS student studying Ti grain boundaries for H storage. Presented at LLNL SLAM and TMS 2023.

R&D Intern at Sandia National Laboratories (Albuquerque, NM)   06/2018—09/2018

- Mentored by John Mitchell and Jay Lofstead in the Center for Computing Research.
- Multiscale modeling studies of kinetic Monte Carlo (KMC) simulations for additive manufacturing.
- Co-authored publication: J. Lofstead et al. in *Proceedings of the 34th IEEE IPDPS*, 2020.

UG Research Assistant advised by Prof. Evan Reed (Stanford, CA)   06/2016—06/2018

- Mentored by Qian Yang and demonstrated transferability of machine-learned KMC models for predicting reactions in different chemical systems (hydrocarbon decomposition in extreme environments).
- *First-author* publication: E. Chen et al. *J. Phys. Chem. A*, 123, 2019 and co-authored book chapter.

TEACHING EXPERIENCE

Research Internship Mentor for LBNL MSD DEI initiative (Berkeley, CA)   Summer 2021 and 2022

- Designed an original, open-source materials informatics (MI) curriculum using Jupyter Book.
- Mentored **11** undergraduate researchers in using MI techniques for data-driven discovery of high-κ dielectrics.
- *Spotlight presentation* at the 2021 MRS Fall Meeting and *first-author* manuscript in review at *J. Chem. Educ.*

Graduate Student Instructor for MSE 45 and MSE 104 (Berkeley, CA)   08/2021—05/2022

- Designed lab lectures and taught labs about introductory MSE concepts and materials characterization. Also held OH and assisted with the overall course ($\sim$ 250 students total). *Overall effectiveness*: **4.8/5.0** ($n = 34$).