Enze Chen

enze.chen1@gmail.com | (314) 562-1965 | https://enze-chen.github.io

EDUCATION

University of California, Berkeley (2019–2023, anticipated)
Ph.D. | Materials Science and Engineering (MSE), advised by Professor Mark Asta | 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.
- Scientific computing and machine learning (ML) expertise for physical science problems.
- Experienced in Python and MATLAB. Working knowledge of C++ and Linux systems/tools.
- Pedagogical content knowledge in physical science domains with experience in instructional design.

RESEARCH EXPERIENCE

Ph.D. Student advised by Prof. Mark Asta (UC Berkeley, CA) 08/2019—present

- Use atomistic simulations (DFT and MD) and materials informatics to study interfaces in metallic alloys.
- Summer 2020 MaCI Intern at Lawrence Livermore National Laboratory working with Timofey Frolov. SLAM competition finalist and oral presentation at TMS 2021. Manuscript in preparation.
- Performed semi-grand canonical structure search for twin boundary phases in Ti as part of a collaboration. Co-authored manuscript under review (arXiv preprint).
- As the Academic & Industry Liaison in the MSE Graduate Student Council, I led seminar initiatives, compiled preliminary exam resources, synthesized curriculum suggestions, and organized industry events.

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.
- Profiled the Stitch I/O system integrated with SPPARKS on high-performance computing clusters.
- Co-authored publication: Lofstead, Jay et al. in *Proceedings of the 34th IEEE IPDPS*, 2020.

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

- Demonstrated transferability of KMC models for predicting reactions in different chemical systems.
- *Oral presentation* at the 2017 MRS Fall Meeting (TC04.08.08).
- *First-author* publication: Chen, Enze et al. *The Journal of Physical Chemistry A*, 123, 2019.
- Co-authored book chapter in *Computational Approaches for Chemistry Under Extreme Conditions*.

TEACHING EXPERIENCE

Summer internship mentor for MSD DEI initiative (Berkeley, CA) 06/2021—07/2021

- Designed an open-source materials informatics (MI) curriculum using Jupyter Book.
- Mentored six undergraduate researchers in using MI techniques for data-driven discovery of high-κ dielectrics.
- *Oral presentation* at the 2021 MRS Fall Meeting (BI01 symposium).

Instructional Designer (ID) at Citrine Informatics (Redwood City, CA) 01/2019—07/2019

- Contributed towards open-source materials informatics (MI) learning tools using Jupyter notebooks.
- Designed 2 days of MI curricula and 7 interactive training sessions for industrial customers.
- Created a pedagogical framework to develop an ID team and strengthen group collaboration.