













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, advised by Professor Mark Asta | GPA: 4.000

Stanford University (2014–2018)

M.S. | Computational and Mathematical Engineering | GPA: 3.970

B.S. | Materials Science and Engineering, with Honors, with Distinction | GPA: 3.965

SKILLS AND AWARDS

- 2020 National Science Foundation Graduate Research Fellowship.
- Machine learning (ML) and scientific computing expertise for physical science problems.
- Very 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.

EXPERIENCE

PhD Student advised by Prof. Mark Asta (UC Berkeley, CA)

08/2019—present

- Research: I use atomistic simulations (density functional theory and molecular dynamics) and machine learning to study interfaces in structural materials.
- Academic & Industry Liaison in MSE Graduate Student Council. Organized seminar-related events, compiled preliminary exam resources, compiled curriculum suggestions, and organized info sessions.

Instructional Designer (ID) at Citrine Informatics (Redwood City, CA)

01/2019 - 07/2019

- Contributed towards open-source Citrination learning tools using Markdown and Jupyter notebooks.
- Designed 2 days of academic curricula and 7 interactive sessions for industrial customers.
- Created a pedagogical framework to develop an ID team and strengthen group collaboration.

UG Research Assistant advised by Prof. Evan Reed (Stanford, CA)

06/2016 - 12/2018

- Demonstrated transferability of KMC models for predicting reactions in different chemical systems.
- Gave an oral presentation at 2017 MRS Fall Meeting (TC04.08.08).
- First-author publication: Chen, Enze et al. The Journal of Physical Chemistry A, 123, 9 (2019)
- Co-authored book chapter in Computational Approaches for Chemistry Under Extreme Conditions.

R&D Intern at Sandia National Laboratories (Albuquerque, NM)

06/2018 - 09/2018

- Multiscale modeling and data management of KMC simulations for additive manufacturing.
- Profiled the Stitch I/O system integrated with SPPARKS on HPC clusters.
- Co-authored publication: Lofstead, Jay et al. in *Proceedings of the 34th IPDPS*, 2020.

Teaching Assistant for CME 100 and CME 104 math classes (Stanford, CA) 04/2018 - 12/2018

- Taught lectures on multivariable calculus, linear algebra, and partial differential equations.
- Held over 90 hrs of OHs, gave 4 lectures, and designed review session material (see GitHub).
- Averaged 4.5/5 for "Effectiveness" and 4.2/5 for "Amount learned from him" out of 109 reviews.