Enze Chen

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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

- Pedagogical content knowledge in physical science domains with experience in instructional design.
- Experience writing digital textbooks using Jupyter, LaTeX, Inkscape, and other tools. Examples in QM, MI.
- 2020 National Science Foundation Graduate Research Fellowship (NSF GRFP).

TEACHING EXPERIENCE

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

- MSE 45 (Fall 2021): Designed lab lectures and taught labs about introductory MSE concepts. Also held OH and assisted with the overall course ($\sim$ 160 students). *Overall effectiveness*: **4.82/5** ($n = 34$).
- MSE 104 (Spring 2022): Designed lab lectures and taught labs about materials characterization. Also held OH and assisted with the overall course ($\sim$ 70 students).

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

- Designed an original, 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.
- *Spotlight presentation* at the 2021 MRS Fall Meeting (BI01.02.01).

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

- Contributed towards open-source MI learning tools using Jupyter notebooks.
- Forthcoming Material Matters commentary article in *MRS Bulletin*.
- 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.

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 h 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.

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. 1st-author paper in review at *npj Comp. Mater.*
- Performed semi-grand canonical structure search for twin boundary phases in Ti as part of a collaboration. Co-authored manuscript in review at *Nature Materials* (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.