

Elizabeth T. Chin

etchin@stanford.edu
etchin.github.io

EDUCATION	Stanford University <i>PhD, Biomedical Data Science</i> <i>Full scholarship funding – 6 years:</i> <i>National Science Foundation Graduate Fellowship</i> <i>Stanford Graduate Fellowship</i>	2017-2022 (Expected)
	University of California Los Angeles <i>BS, Applied Mathematics</i> <i>Minor, Bioinformatics</i>	2013-2017
EMPLOYMENT & AFFILIATIONS	Stanford University Department of Biomedical Data Science <i>Doctoral candidate</i> <i>Advisors: Dr. Euan Ashley & Dr. Trevor Hastie</i> <i>Thesis: Data science for health equity.</i>	2017-Present
	Stanford University Department of Health Policy <i>Researcher</i> <i>Advisors: Dr. Jason Andrews, Dr. Jeremy Goldhaber-Fiebert,</i> <i>Dr. Joshua Salomon, Dr. David Studdert</i> Modeling and assessing Covid-19 policies in California prisons	2020-Present
	Harvard University Immigration Lab <i>Biostatistician</i> <i>Advisor: Dr. Katherine Peeler</i> Sole statistician for the Peeler Immigration Lab, which focuses on human rights issues and healthcare access in immigration detention centers	2020-Present
	Quora <i>Data Science Intern</i>	Summer 2017
	Adobe Systems <i>Machine Learning Intern</i>	Summer 2016
	University of California Los Angeles Department of Bioinformatics <i>Research Assistant</i> <i>Advisor: Dr. Xinshu (Grace) Xiao</i> Development of bioinformatic methods for genomics	2014-2017
	Harvard University Department of Systems Biology <i>Summer Research Fellow</i> <i>Advisor: Dr. Pardis Sabeti</i> Development of machine learning methods for triaging to improve outbreak response in Low-to-Middle-Income Countries	Summer 2015
	University of California Irvine National Science Foundation <i>REU Fellow</i> <i>Advisor: Dr. Rachel Martin & Dr. Carter Butts</i> Development of statistical models for protein modeling	Summer 2014

PUBLICATIONS *Journal Articles - Original Research*

1. **Chin ET**, Leidner D, Ryckman T, Liu Y, Prince L, Alarid-Escudero F, Andrews JR, Salomon JA, Goldhaber-Fiebert JD, Studdert DM (2021) "Covid-19 Vaccine Acceptance in California State Prisons." *New England Journal of Medicine*. doi.org/10.1016/S1473-3099(18)30121-X.
 → *Media coverage: SF Chronicle*
2. Ryckman T, **Chin ET**, Prince L, Leidner D, Long E, Studdert DM, Salomon JA, Alarid-Escudero F, Andrews JR, Goldhaber-Fiebert JD (2021). "Outbreaks of Covid-19 Variants in Prisons: A Mathematical Modeling Analysis of Vaccination and Re-Opening Policies." *The Lancet Infectious Diseases*. *In press*. doi.org/10.1101/2021.05.03.21256525.
3. **Chin ET***, Ryckman T*, Prince L, Leidner D, Alarid-Escudero F, Andrews JR, Salomon JA, Studdert DM, Goldhaber-Fiebert JD (2021) "Covid-19 in the California State Prison System: An Observational Study of Decarceration, Ongoing Risks, and Risk Factors." *Journal of General Internal Medicine*. *In press*. doi.org/10.1101/2021.03.04.21252942. ***Co-first author**
4. Kiang M, **Chin ET**, Huynh B, Chapman L, Rodríguez-Barraquer I, Greenhouse B, Rutherford G, Bibbins-Domingo K, Havlir D, Basu S, Lo N. (2021) "Routine asymptomatic testing strategies for airline travel during the COVID-19 pandemic: a simulation analysis." *The Lancet Infectious Diseases*. doi.org/10.1016/S1473-3099(21)00134-1.
 → Editor's choice cover page article.
 → *Media coverage: NPR, SF Chronicle*
5. **Chin ET**, Huynh B*, Chapman L, Murrill M, Basu S, Lo N. (2020) "Frequency of routine testing for COVID-19 in high-risk environments to reduce workplace outbreaks." *Clinical Infectious Diseases*. doi.org/10.1093/cid/ciaa1383. ***Co-first author**
 → *Policy implications: Centers for Disease Control and Prevention. Interim Guidance for SARS-CoV-2 Testing in Non-Healthcare Workplaces. March 17 2021.*
6. **Chin ET***, Huynh B*, Lo N, Hastie T, Basu S (2020) "Projected geographic disparities in health-care worker absenteeism from COVID-19 school closures and the economic feasibility of child care subsidies: a simulation study." *BMC Medicine*. doi.org/10.1186/s12916-020-01692-w. ***Co-first author**
 → *Policy implications: World Health Organization. Regional Office for the Western Pacific. Calibrating long-term non-pharmaceutical interventions for COVID-19: principles and facilitation tools. May 16 2020.*
7. Paige S*, Galdos F*, Lee S*, **Chin ET***, Ranjbarvaziri S, Feyen DAM, Darsha AK, Xu S, Ryan JA, Beck AL, Qureshi MY, Miao Y, Gu M, Bernstein D, Nelson TJ, Mercola M, Rabinovitch M, Ashley EA, Parikh VN, Wu SM (2020) "Patient-Specific Induced Pluripotent Stem Cells Implicate Intrinsic Impaired Contractility in Hypoplastic Left Heart Syndrome." *Circulation*. doi.org/10.1161/CIRCULATIONAHA.119.045317. ***Co-first author**
8. Cordero P, Parikh VN, **Chin ET**, Erbilgin A, Gloudemans MJ, Shang C, Huang Y, Chang AC, Smith KS, Dewey F, Zaleta K, Morley M, Brandimarto J, Glazer N, Waggott D, Pavlovic A, Zhao M, Moravec CS, Tang WHW, Skreen J, Malloy C, Hannenhalli S, Li H, Ritter S, Li M, Bernstein D, Connolly A, Hakonarson H, Lusi AJ, Margulies KB, Depaoli-Roach AA, Montgomery SB, Wheeler MT, Cappola T, Ashley EA (2019) "Pathologic gene network rewiring implicates PPP1R3A as a central regulator in pressure overload heart failure." *Nat Communications*. doi.org/10.1038/s41467-019-10591-5.

9. Okokhere P, Colubri A, Azubike C, Iruolagbe C, Osazuwa O, Tabrizi S, **Chin ET**, Asad S, Ediale E, Rafiu M, Adomeh D, Odia I, Atafo R, Aire C, Okogbenin S, Pahlman M, Becker-Ziaja B, Asogun D, Fradet T, Fry B, Schaffner SF, Happi C, Akpede G, Günther S, Sabeti PC (2018) “Clinical and laboratory predictors of Lassa fever outcome in a dedicated treatment facility in Nigeria: a retrospective, observational cohort study.” *The Lancet Infectious Diseases*. doi.org/10.1016/S1473-3099(18)30121-X.

Working Papers

1. **Chin ET**, Leidner D, Zhang Y, Long E, Schrag SJ, Verani JR, Wiegand RE, Prince L, Alarid-Escudero F, Goldhaber-Fiebert JD, Andrews JR, Studdert DM, Salomon JA (2021). “Effectiveness of Covid-19 Vaccines among Incarcerated People in California state Prisons.” *Under review*.
→ Co-authored with colleagues from the Centers for Disease Control and Prevention.
2. Huynh B, Kwong L, Kiang M, **Chin ET**, Mohareb A, Jumaan A, Basu S, Geldsetzer P, Karaki F, Rehkopf D (2021) “Public health impacts of an imminent Red Sea oil spill.” *Under Review*.
3. **Chin ET**, Goldhaber-Fiebert JD, Ryckman T, Prince L, Andrews JR, Salomon JA, Studdert DM (2021) “Covid-19 Testing Hesitancy Among Incarcerated Men in California.” *Under review*.

Journal Articles - Commentaries & Editorials

1. Erfani P, **Chin ET**, Lee CH, Uppal N, Peel KR (2021) “Suicide rates of migrants in United States immigration detention (2010–2020).” *AIMS Public Health*. doi.org/10.3934/publichealth.2021031.
2. Uppal N, **Chin ET**, Lee CH, Erfani P, Peel KR (2021) “International Medical Graduates and Practice Rates in Underserved Communities in Florida.” *Under review*.

PRESENTATIONS

1. Effectiveness of Covid-19 Vaccines among Residents in California State Prisons. “Briefing for California Department of Corrections and Rehabilitation & Federal Receiver.” June 28 2021. *Invited speaker*.
2. Resumption of in-person activities and Covid-19 Risks in CDCR Prisons. “Briefing for California Department of Corrections and Rehabilitation & Federal Receiver.” April 6 2021.
3. Modeling Vaccination in California Prisons. “Briefing for California Department of Corrections and Rehabilitation & Federal Receiver.” February 23 2021.
4. Frequency of routine testing for Covid-19 in High-risk Healthcare Environments. “Massachusetts Primary Care Leader Community Call.” December 15 2020. *Invited speaker*.
5. Mass incarceration under COVID-19. “Swiss-Re Covid-19 Summit: Moving from reacting to managing.” November 10 2020. *Invited speaker*.
6. Housing density, contacts, & risk of Covid-19. “Briefing for California Department of Corrections and Rehabilitation.” November 3 2020. *Invited speaker*.
7. Covid Risk and Transmission in the California Prison System: Data, Models, and Policies. “Stanford Health Policy Research Seminar.” September 25 2020. *Invited speaker*.

8. Factors relevant to Covid-19 risk in California prisons. “Briefing for California Department of Corrections and Rehabilitation & Federal Receiver.” October 13 2020. *Invited speaker.*
9. Modeling the Spread of Covid-19 in California III. “Briefing for California Department of Corrections and Rehabilitation & Federal Receiver.” August 4 2020. *Invited speaker.*
10. Modeling the Spread of Covid-19 in California II. “Briefing for California Department of Corrections and Rehabilitation & Federal Receiver.” July 16 2020. *Invited speaker.*
11. Modeling the Spread of Covid-19 in California I. “Briefing for California Department of Corrections and Rehabilitation.” July 2 2020. *Invited speaker.*
12. Longitudinal examination of mental health care need & criminal arrests. “Stanford Biomedical Data Science Research Seminar.” February 2 2020. Oral presentation.
13. Identifying and interpreting novel trajectories using longitudinal manifold learning. “Stanford Biomedical Data Science Research Symposium.” September 19 2019. Poster.
14. Disentangling the longitudinal topological landscape of wellness. “Stanford Biomedical Data Science Research Seminar.” March 5 2019. Oral presentation.
15. Network normalization to correct for batch effects in single cell RNA-seq. “Stanford Biomedical Data Science Research Symposium.” September 13 2018. Poster.
16. Community structure framework for reducing batch effects in identifying cell populations for single cell RNA-seq. “Stanford Biomedical Data Science Research Seminar.” April 17 2018. Oral presentation.
17. Adjusting batch effects in scRNA-seq data using optimal matching. “Chan-Zuckerberg Biohub Conference.” November 30 2017. Poster.
18. Aberrant RNA processing in immune response mechanisms in lung adenocarcinoma. “University of California Los Angeles Research Symposium.” June 1 2016. Poster.
19. Information theory and Bayesian modeling of prognosis in Lassa Fever patients. “Harvard Research Symposium.” August 13 2015. Poster.
20. Bayesian model integration methods to predict protein aggregation. “University of California Irvine Research Symposium.” September 2 2014. Oral presentation.

PATENTS

U.S. Patent Application 20180137522, “Segment Valuation in a Digital Medium Environment,” May 17, 2018.

SELECTED HONORS

The Lancet Infectious Disease	2021
Editor’s choice article	
National Science Foundation Graduate Fellowship	March 2017
Full scholarship funding – 3 years	
Stanford Graduate Fellowship	March 2017
Full scholarship funding – 3 years	
Amgen Scholars	Summers 2015, 2016 (declined)
\$6000 fellowship awarded to fund summer research at the University of California Los Angeles	
Harvard Summer Research Scholar	Summer 2015
\$6000 fellowship awarded to fund summer research at the Broad Institute	
Lau Research Fellowship	2015-2016
\$2000 research fellowship awarded by University of California Los Angeles	

NSF Research Experience for Undergraduates	Summer 2014
\$6000 fellowship awarded to fund summer research at University of California Irvine	
Norma J. Ehrlich Scholarship	2013-2017
Competitive merit scholarship	

TEACHING & MENTORING	Instructor , Stanford Advancing Health Equity & Diversity Program	2021
	Instructor , Stanford Prison Education Project	2019-Present
	Mentor , Inclusive Mentorship in Data Science	2021
	Mentor , Girls Who Code	2016, 2021
	Teaching Assistant , Translational Bioinformatics	Winter, Fall 2019

PROFESSIONAL SERVICE	Reviewer , <i>PLOS One</i>	2021
	<i>Human Resources for Health</i>	2021
	<i>The Lancet</i>	2020