ANGEL CHEN

Interests: Data Science, Open & Reproducible Science

Email: angel777chen@gmail.com

Phone: (415) 672-0321

Website: angelchen7.github.io

LinkedIn: linkedIn: linkedin.com/in/angel-chen77

EDUCATION

University of California, Santa Barbara (UCSB), Santa Barbara, CA Bachelor of Science in Statistics and Data Science

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Sept. 2017 - June 2021

GPA: 3.91 / 4.0

SELECTED PROFESSIONAL EXPERIENCE

Data Analyst – National Center for Ecological Analysis and Synthesis (NCEAS) – Santa Barbara, CA Feb. 2022 – Present

- Support 12 Long Term Ecological Research (LTER) Network and 2 Delta Stewardship Council synthesis working groups by developing reproducible workflows to wrangle, analyze, model, visualize, and integrate various sources of data
- Write content on the LTER SciComp Team website (<u>nceas.github.io/scicomp.github.io</u>), ranging from best practices for open science to tutorials on how to access certain data repositories and deploy R Shiny apps on a server
- Promote an open approach to synthesis science by hosting 11 workshops on collaborative coding with GitHub and the Tidyverse for the LTER synthesis working groups and Information Managers, 2022 All Scientists' Meeting, and the 2023 American Geophysical Union (AGU) conference
- Maintain and contribute to the R package "scicomptools" on the Comprehensive R Archive Network (CRAN)
- Taught in 3 one-week-long courses on reproducible techniques and tools for research as part of the NCEAS Learning Hub Team

Data Science Student Fellow – Central Coast Data Science Partnership – Santa Barbara, CA Oct. 2020 – June 2021

- Collaborated on a team capstone project sponsored by the Cheadle Center for Biodiversity and Ecological
 Restoration by utilizing R and Python to build network visualizations mapping interactions between bees and plants
- Quantified pollen/nectar specialization and classified bee species as specialists or generalists
- Co-authored a poster on leveraging large biological interaction datasets for the 2021 Ecological Society of America (ESA) annual meeting
- Developed and designed original course materials in the format of a final project for undergraduate students in an introductory data science class

Data Curator – Arctic Data Center – Santa Barbara, CA **Data Curator Intern** – Arctic Data Center – Santa Barbara, CA

Sept. 2021 – Feb. 2022

Oct. 2019 – Sept. 2021

- Utilized R to build metadata and archive ecological data from research projects focused on environmental issues in the Arctic for the Arctic Data Center, a National Science Foundation (NSF) data repository
- Communicated with researchers about their file submissions for data quality assurance before publishing their finalized datasets with DOI numbers on the Arctic Data Center
- · Resolved over 100 tickets created by users each time they submitted datasets in an email ticketing system
- Created metadata records for 7 datasets that informed key findings for the 2020 Arctic Report Card, published by the National Oceanic and Atmospheric Administration (NOAA)

Office Assistant – UCSB Associated Students Administration – Santa Barbara, CA

April 2019 – March 2020

- Answered daily phone calls and emails directed at the UCSB Associated Students Administrative Office
- · Logged information from requisition forms and checks into Excel spreadsheets

· Uploaded and organized minutes from weekly Associated Students meetings into a public database with tags

SELECTED PUBLICATIONS & PRODUCTS

- Avolio, M. L. et al. Drought Reduces Species Richness by Increasing Losses and Reducing Gains. [In prep]
- Brun, J. et al. Enabling Data-Driven Collaborative and Reproducible Environmental Synthesis Science. [In prep]
- LaMontagne, J. M. et al. Community Synchrony in Seed Production is Associated with Trait Similarity and Climate across North America. [In revision]
- Nigro, K. M. et al. coMAST: Harmonized Seed Production Data for Woody Plants across U.S. Long Term Research Sites. [In revision]
- Lyon, N. J. & Chen, A. (2024). Itertools: Tools Developed by the Long Term Ecological Research Community. R package version 1.0.0.900. github.com/lter/ltertools.
- Brun, J. et al. (2023). scicomptools: Tools Developed by the NCEAS Scientific Computing Support Team. R package version 1.0.0.900. github.com/NCEAS/scicomptools.

SELECTED COURSES, WORKSHOPS, & PRESENTATIONS

- Poulsen, C. V. & Chen, A. (2024, June 10 13). NCEAS coreR for Delta Science Program. NCEAS Learning Hub, Sacramento, CA, United States. Course. learning.nceas.ucsb.edu/2024-06-delta.
- Clark, J. et al. (2024, March 25 29). Scalable and Computationally Reproducible Approaches to Arctic Research. Arctic Data Center & NCEAS Learning Hub, Santa Barbara, CA, United States. Course. doi.org/10.18739/A2C53F33M.
- Clark, J. et al. (2024, February 26 March 1). Reproducible Approaches to Arctic Research Using R. Arctic Data Center & NCEAS Learning Hub, Virtual. Course. doi.org/10.18739/A2QF8JM4T.
- Chen, A. & Lyon, N. J. (2023, December 10). Collaborative Coding with GitHub. American Geophysical Union Annual Conference, San Francisco, CA, United States. Workshop.
- Chen, A. & Lyon, N. J. (2023, November 28). Collaborative Coding with GitHub. LTER Network Office, Virtual. Workshop. nceas.github.io/scicomp-workshop-collaborative-coding.
- Chen, A. & Lyon, N. J. (2022, September 20). Reproducible & Collaborative Coding with Git. LTER All Scientists' Meeting, Pacific Grove, CA, United States. Workshop.
- Lyon, N. J., Chen, A., Brun, J. (2022, August 12). Coding in the Tidyverse. LTER Network Office, Virtual. Workshop. nceas.github.io/scicomp-workshop-tidyverse.
- Bachelder, N. R. et al. (2021, August 5). Leveraging Large Biological Interaction Data to Quantify Plant Specialization by Bees. Ecological Society of America Annual Meeting, Virtual. Poster Presentation. escholarship.org/uc/item/33b2t2bq.

SELECTED AWARDS & ACHIEVEMENTS

| Central Coast Data Science Fellowship – UCSB – \$5000 | 2020 - 2021 |
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| College of Letters & Science Honors Program – UCSB | 2019 - 2020 |
| Alumni Association Scholarship – UCSB – \$2000 | 2018 - 2019 |
| College of Letters & Science Honors Program – UCSB | 2018 - 2019 |