

Jordan Cahoon

Curriculum vitae

Contact

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Education

Exp. 2024 **B.S. Computer Science**, *University of Southern California*, 3.93 GPA,
Minor in Computational Biology & Bioinformatics

Research Experience

- Aug 2022 - Present **Artificial Intelligence Intern**, *The Ellison Institute for Transformative Medicine*, Los Angeles, California
- Develops deep learning models to identify breast cancer markers from cell pathology
 - Refined quality control pipeline to process thousands of images on the cloud
- Feb 2021 - Present **Undergraduate Researcher, Funded by Viterbi Fellowship**, *Chiang Research Group*, Los Angeles, California, University of Southern California, Keck School of Medicine
- Analyzed genotype imputation quality of the TOPMed Reference panel for non-European populations
 - Discovered imputation quality loss for East Asian, South-Asian, Oceanian, and Southeast Asian cohorts
 - Assessed methods to improve imputation quality for population specific variants
 - Developed webpage to visualize imputation statistics for over 200 populations from 39 publications
- June 2020 - Jan 2021 **Undergraduate Assistant**, *Tait-Wojno Lab*, Seattle, Washington, University of Washington, Department of Immunology
- Designed visualizations of specific transcriptomic responses to infection in intestinal epithelial cells
 - Conducts analysis to identify canonical markers of CD4+ t cell subsets in murine cecum and decipher t-cell diversity in the large intestine
- July - Aug 2019 **Wet Lab Research Intern**, *Baliga Lab*, Seattle, Washington, The Institute for Systems Biology
- Developed electroporation protocol that facilitates transfer of CRISPR-Cas9 complex into *C. reinhardtii*
 - Created and presented figures that nitrogen starvation increases lipid production in *C. reinhardtii*
 - Edited and provided feedback on an open-source biofuels curriculum for use in public schools

Work Experience

- May - Aug 2022 **Software Engineering Intern**, *Oracle Cloud Infrastructure*, Seattle, Washington
- Designed automated daily health checks for cloud billing accounts

- June 2021 - **Viterbi Student Ambassador, Content Lead**, Viterbi School of Engineering Admissions, Los Angeles, California, University of Southern California
- Present
- Led team of 12 students to produce bi-weekly virtual student panels about student life for prospective engineering students
 - •divertised panels through social media outreach, bi-weekly YouTube videos, and Spotify podcasts.

Publications

- 3 **Cahoon JL**, Rui X, Tang E, Simons C, Langie J, Chen M, Lo YC, Chiang CWK. Imputation around the world: Assessing imputation quality across diverse global populations. [Poster]. American Society of Human Genetics 2022 Annual Meeting. 2022 Oct 26, Los Angeles Convention Center.
- 2 Sheng X, Xia L, **Cahoon JL**, Conti DV, Haiman CA, Kachuri L, Chiang CWK. Inverted genomic regions between reference genome builds in humans impact imputation accuracy and decrease the power of association testing. Human Genetics and Genomics Advances. 2022 Nov 11. doi: 10.1016/j.xhgg.2022.100159.
- 1 Oyesola OO, et. al. *PGD2 and CRTH2 counteract Type 2 cytokine-elicited intestinal epithelial responses during helminth infection*. J Exp Med. 2021 Sep 6;218(9):e20202178. doi: 10.1084/jem.20202178.

Oral Presentations

- April 2022 Utilizing Reinforcement Learning to Predict Polyculture Formations, *Spring CAIS++ Project Showcase 2022*
- Dec 2021 Modeling Malaria Outbreaks Utilizing Weather Factors , *Fall CAIS++ Project Showcase 2021*
- April 2021 Predicting pandemic risk of Influenza mutations with Deep Learning , *Spring CAIS++ Project Showcase 2021*

Teaching Experience

- Sep - Dec 2022 Curriculum Lead for open source deep learning curriculum for undergraduates
- Jan - May 2022 Course Producer for CSCI 104, Data Structures and Objected Oriented Programming

Awards

Viterbi Undergraduate Merit Research Fellowship
USC Presidential Half Tuition Scholarship
USC Dornsife Thematic Option, Reading & Writing Honors

Leadership

- Aug 2022 - **Co-President**, The Center for Artificial Intelligence's Student Branch (CAIS++)
- Present
- Sep 2021 - May 2022 **Project Manager**, Novus Think Tank