

Landen Gozashti

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Education:

Bachelor of Science, Bioengineering

University of California Santa Cruz

Major: Bioengineering (Biomolecular concentration)

Minor: Bioinformatics

GPA: 3.63

PhD (in progress)

Harvard University

Organismic and Evolutionary Biology

Awards and Honors:

- NCAA Academic Athlete 2016, 2017, 2018, 2019
- Dean's List 2016
- NCAA Scholar All Region 2018, 2019
- Singapore International Pre-Graduate Award 2018
 - Stipend awarded to conduct 3 months of research at the Singapore Agency for Science, Technology, and Research
- Dean's Undergraduate Award 2019, 2020, 2020 (won with two separate projects in 2020)
 - Awarded by the dean of engineering in recognition of outstanding accomplishment in an undergraduate research project
- Chancellor's Undergraduate Research Award 2019, 2020
 - Awarded by the Chancellor of UCSC to the top three undergraduate research accomplishments in each department
- Society of Molecular Biology and Evolution Undergraduate Travel & Mentoring award 2020
- Genetic Society of America Undergraduate Award 2020

Professional Activities:

Oral Presentations:

- *Evolution 2019*, Providence, USA, June 2019
- *Northern California Computational Biology 2019*, Davis, USA, October 2019
- *Bay Area Population Genomics*, Berkeley, USA, November 2019
- Guest Lecturer for “BME 232: *Evolutionary Genomics*” (a graduate level course taught through the Department of Biomolecular Engineering at the University of California, Santa Cruz), November 2019, 2020
- *COVID-19 Dynamics and Evolution*, virtual meeting, October 2020

Poster Presentations:

- *Bay Area Population Genomics*, Palo Alto, USA, March 2019
- *Genome Research Day*, Mountain View, USA, March 2019
- *ProbGen '2019*, Aussois, France, October 2019

Research Experience:

Ares Lab

- September 2017 - June 2018
- Department of Molecular, Cell, and Developmental Biology, University of California Santa Cruz, Santa Cruz, CA
- **Engineered and implemented a reporter to recognize intron gain via reverse splicing in yeasts.**

Chen Lab

- June 2018 - August 2018
- Immunos, Agency for Science, Technology, and Research, Singapore
- **Developed a pipeline for neoantigen prediction from scRNA-seq data**

Corbett-Detig Lab

- September 2018 - present
- Department of Biomolecular Engineering, University of California Santa Cruz, Santa Cruz, CA | UCSC Genomics Institute University of California Santa Cruz, Santa Cruz, CA
- **Employed ultra accurate sequencing to measure bottleneck sizes of deep sea clam endosymbionts using low frequency mutations**
- **Designed and implemented a pipeline to detect putative introner elements across all annotated genomes available through NCBI**
- **Worked on a collaborative effort investigating the stability of SARS-CoV-2 phylogenetics and developing tools for SARS-CoV-2 comparative and phylogenetic analysis**

Roy Lab

- July 2019 - present
- Department of Biology, San Francisco State University
- **Used computational methods to interrogate mechanisms of intron gain in the most intron rich eukaryotes**

Publications:

Peer Reviewed:

1. Yatish Turakhia*, Nicola De Maio*, Bryan Thornlow*, **Landen Gozashti**, Robert Lanfear, Conor R. Walker, Angie S. Hinrichs, Jason D. Fernandes, Rui Borges, Greg Slodkowitz, Lukas Weilguny, David Haussler, Nick Goldman, and Russell Corbett-Detig. Stability of SARS-CoV-2 Phylogenies. PLOS Genetics. 2020.

Non-peer Reviewed:

1. **Landen Gozashti**. Introner Elements Inhabit Algal and Protist Genomes. 2019. <https://dca.ue.ucsc.edu/system/files/dca/1164/1164.pdf>
2. **Landen Gozashti**. De novo creation of spliceosomal introns by different transposition mechanisms across diverse eukaryotes. 2020. <https://dca.ue.ucsc.edu/system/files/dca/1229/1229.pdf>
3. Preet Kaur and **Landen Gozashti**. Introner Elements drive ongoing intron gain in *Oikopleura dioica*. 2020. <https://dca.ue.ucsc.edu/system/files/dca/1269/1269.pdf>
4. Nicola De Maio, **Landen Gozashti**, Yatish Turakhia, Connor Walker, Robert Lanfear, Russell Corbett-Detig and Nick Goldman. Issues with SARS-Cov-2 sequencing data: Updated analysis with data from 12th June 2020. Virological. 2020. <https://virological.org/t/issues-with-sars-cov-2-sequencing-data/473/12>
5. Yatish Turakhia, Bryan Thornlow, Angie S. Hinrichs, Nicola De Maio, **Landen Gozashti**, Robert Lanfear, David Haussler and Russell Corbett-Detig. Ultrafast Sample Placement on Existing Trees (UShER) Empowers Real-Time Phylogenetics for the SARS-CoV-2 Pandemic. BioRxiv. 2020. <https://doi.org/10.1101/2020.09.26.314971>
6. Scott W Roy, **Landen Gozashti**, Bradley Bowser, Brooke N Weinstein and Graham Larue. Massive intron gain in the most intron-rich eukaryotes is driven by introner-like transposable elements of unprecedented diversity and flexibility. BioRxiv. 2020. <https://doi.org/10.1101/2020.10.14.339549>