Annika Jorgensen

Email: aljorge2@asu.edu
annieleejorg0705@gmail.com
Phone Number: 385-315-4242
Website: annikajorgensen.com
San Diego, CA

EDUCATION

Arizona State University   Tempe, AZ
MS Biology: Computational Life Sciences, GPA: 3.97   2023–2024

Arizona State University   Tempe, AZ
Honors BS Biophysics, GPA: 3.59   2019–2023

EXPERIENCE

Bioinformatics Programmer–Dr. Xin Sun & Dr. Allen Wang   July 2024- Present
Xin Sun Lab & Center for Epigenomics   San Diego, CA

- Employ software tools to interpret biological data
- Analyze RNAseq and ATACseq data
- Conduct statistical methods on biological data
- Debug computer programs
- Maintain webages
- Documents changes to operational systems

Research Assistant–Dr. Melissa Wilson   November 2021- May 2024
Sex Chromosome Lab   Tempe, AZ

- Analyzed sex differential expression of genes
- Applied inferential statistics to student outcomes
- Implemented biostatistical methods in R
- Constructed multivariate RNA-seq models
- Performed biochemical pathway analyses
- Searched and reviewed bioinformatics literature

Teaching Assistant-CURE   Fall 2023
Arizona State University   Tempe, AZ

- Educated students on R and RStudio
- Educated students on genomics
- Educated students on differential gene expression
- Educated students on how to write a manuscript
- Educated students on cancer cell lines
- Educated students on data visualization

Teaching Assistant-Research Computing   Fall 2022, Fall 2023
Arizona State University   Tempe, AZ

- Educated students on writing bash scripts
- Educated students on SSH
- Educated students on sequence alignments
- Educated students on variant calling
- Educated students on SAM and BAM files
- Educated students on RNA-seq visualization

Community Assistant   Winter 2021 - May 2023
Arizona State University   Tempe, AZ

- Created a community amongst residents
- Helped students in crisis
- Moved students in and out of the college dormitories
- Connected students to services within the university
- Maintained safety within the residence hall
- Mediated conflicts between residents

Compliance Editor   Fall 2021-May 2023
American Preparatory Academy   Draper, UT

- Edited IEPs for special education students
- Managed projects special education services
- Took notes for IEP quality assurance
- Converted special education files to digital format

Eco Rep   Fall 2022
Eco Reps ASU   Tempe, AZ

- Educated students about sustainability
- Created engaging events focused on the environment

Research Aide   Summer 2020-Fall 2021
SciHub ASU   Tempe, AZ

- Led the Fluorescence Spectroscopy Project
- Constructed electric circuits using reflow soldering
- Learned how to operate spectroscopy equipment
- Drafted market studies for products

Commercial Intern   Summer 2020-Spring 2021
Civica Rx   Lehi, UT

- Developed drug sales datasheet
- Scrubbed large databases
- Created government official datasheet
- Drafted sales agreements for hospital partners

PUBLICATIONS

- **Annika Jorgensen**, "Sex-biased gene expression and pathway activation in hepatitis-associated HCC.", *Barret, The Honors College Thesis/Creative Project Collection, May 2023*

- **Elizabeth S. Borden**, Annika Jorgensen, Heini M. Natri,Karen Taraszka Hastings, Kenneth H. Buetow and Melissa A. Wilson, "HCV- and HBV- mediated liver cancer converge on similiar transcriptomic landscapes and immune profiles.", *In Preparation*

CONFERENCES

1. **Annika Jorgensen**, Elizabeth S. Borden, Musa Gabere,Karen Taraszka Hastings, Melissa A. Wilson, Kenneth H. Buetow, "Sex-Differential Expression Analysis in Viral-Mediated Hepatocellular Carcinoma.", *UACC Cancer Research: Present and Future, September 2022*

2. **Annika Jorgensen**, Mary Carlson "TWIST 1 Expression Induced by TNF α & TGF β.", *SLCC SME Symposium, May 2019*

SKILLS

- **R:** Skilled in use of Differential Expression and Statistical analysis in R
- **Python:** Skilled in use of IDE and writing code
- **MATLAB:** Skilled in use of IDE and writing code
- **Arduino:** Skilled in operation of IDE and making circuits
- **Mathematica:** Skilled in accessing biological databases and operating symbolic math library
- **Bash:** Skilled in writing scripts for working with SAM & BAM files
- **Git:** Familiar with software developement workflows and version control
- **Sequence alignments:** Can conduct sequence alignments and call variants
- **Quality assessments:** Can run quality checks on raw sequencing data

PROJECTS

Differential Expression Analysis 2021–Present

Working on Sex Differential Expression Analysis to discover genes sex deferentially expressed in Liver Cancer

Fluorescence Spectrometer Project 2021

The development of a portable fluorescence spectrometer used to detect skin cancer

TWIST 1 in HEK 293 cells 2019

TWIST 1 Expression Induced by TNF α & TGF β. The study of TWIST 1 expression in HEK 293 cells

PcO6 and Production of Biofilm 2018

The study of how PcO6 produces biofilm on root plating and in liquid medium.

EXTRACURRICULAR ACTIVITIES

- **ASU Herstory Committee** Spring 2022
  Tempe Vice-Chair. I worked on creating events centered around the women experience for the ASU Tempe Campus.
- **SWE ASU** 2019–2022
  Outreach Director 2020 and K-12 Outreach Director 2021. I coordinate all volunteer and service events for SWE ASU