

# Zach Eliason

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## OBJECTIVE

Bioinformatician with strong computational skills and expertise in gene expression, genomics, and cancer immunology research. Looking for full-time work starting in January (following the completion of undergraduate degree). Enjoys deep learning and computational solutions to real-world problems.

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## EDUCATION

**BRIGHAM YOUNG UNIVERSITY, COLLEGE OF LIFE SCIENCES**

Provo, UT

B.S. Bioinformatics, Minor in Computer Science

*Dec. 2023*

GPA: 3.99/4.0, Major GPA: 4.0/4.0

**Honors:** 2022 Amgen Scholar, Washington University St. Louis  
Recipient of 4 year full-tuition university scholarship  
College of Life Sciences Dean's List (top 5%)

**Courses:** **Biology:** Genetics, Computational Cancer Biology, Molecular Biology, Evolutionary Biology, Chemistry  
**CS:** Deep Learning, Algorithm Design & Analysis, Data Structures, Discrete Structures  
**Math:** Linear Algebra, Biological Data Science, ANOVA

**Skills:** **Programming:** Python, R, C++, SQL & NOSQL databases, Unix, Git version control, web programming  
**Deep Learning:** PyTorch, CNN, RNN, VAE, GAN, transformers  
**Other:** BLAST, reference & *de novo* genome assembly, Adobe Creative Suite, Russian, teamwork

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## BIOINFORMATICS WORK EXPERIENCE

**BIOINFORMATICS INTERN**

*May 2023—Aug. 2023*

Zayt Bioscience

Berlin, Germany

- Developed 100+ novel synthetic promoters using neural net architecture to enhance gene expression experiments
- Built custom BLAST-guided DNA alignment pipeline to facilitate comparative analysis of target genes across over 100 fungal species

**BIOINFORMATICS RESEARCH ASSISTANT**

*Jun. 2022—Aug. 2022*

Zhang Lab, Washington University

St. Louis, MO.

- Led team of 3 on HLA genotyping research project for improving cancer outcomes
- Designed and implemented novel genotyping tool achieving over 90% accuracy
- Conducted literature review in order to compile paper for publication

**DATA MANAGER & RESEARCH ASSISTANT**

*Jan. 2021—Apr. 2022*

Abbott Lab, BYU

Provo, UT.

- Analyzed hydrology time series spanning 3+ years to advance conservation efforts
- Oversaw and trained 10+ computational assistants to maintain database integrity
- Orchestrated bi-monthly lab meetings to ensure communication and organization
- Designed data cleaning and correction tools for large data sets in use by 12+

**BIOINFORMATICS RESEARCH ASSISTANT**

*Apr. 2021—Apr. 2022*

Piccolo Lab, BYU

Provo, UT.

- Led team of 10 in study of publication trends to advance pedagogical methods
- Created data visualizations, ran analyses, and oversaw manuscript for publication
- Designed, built, and tested web tool for teaching and evaluating bioinformatics students used by 4 professors and 100+ students