

Zach Eliason

Bioinformatician with strong computational skills and expertise in genomics and cancer immunology research. Enjoys deep learning approaches and coding solutions to real-world problems.

Education

BRIGHAM YOUNG UNIVERSITY, COLLEGE OF LIFE SCIENCES *Dec. 2023*
B.S. Bioinformatics, Minor in Computer Science *Provo, UT.*
GPA: 3.99/4.0, Major GPA: 4.0/4.0

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

Bioinformatics Work Experience

BIOINFORMATICS INTERN *May 2023—Aug. 2023*
Zayt Bioscience *Berlin, Germany*

- + Developed and assessed 100+ novel synthetic promoters using state-of-the-art deep learning to enhance protein production in 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

Contact

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Skills

PROGRAMMING

- + Languages: Python, R, C++, SQL & NOSQL databases, Bash (Unix Shell), web programming
- + Version Control: Git

DEEP LEARNING

- + Frameworks: PyTorch
- + Architectures: CNN, RNN, VAE, GAN, transformer

DOMAIN KNOWLEDGE

- + Genomics, molecular biology, immunology, statistical analysis, algorithm design
- + BLAST, de novo and reference genome alignment

OTHER

- + Adobe Creative Suite, proficiency in Russian language, initiative, teamwork

Last updated 06-24-2023.
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zacheliason.com/resume.pdf