

# Tyler Heaton

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## EDUCATION

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### Brigham Young University

Bachelor of Science, Bioinformatics, Minor in Computer Science

June 17, 2021

Provo, UT

- GPA 3.83, ACT 26, MCAT 512 | Dean's list x3 | Academic Scholarship | Regents Scholarship
- Programming Languages: C++, Python, Java, R, Vue.js, HTML, CSS, SQL
- Leadership: Founder of club with over 200 members
- Awards: Undergraduate Research Award (Data Science) | UCUR Presenter

### Software and Web Development Experience

- Created back-end for a family history application using Java which accepts and handles api requests from the front-end. I created the front-end using Android which displayed family connections on a world map using the Google Map api. I also had the back-end use SQL for querying the database.
- Used Test-Driven Development (TDD) with unit testing to develop projects and implement code.
- Learned and implemented algorithms such as: Divide and conquer, Greedy, Dynamic programming, etc. As well as demonstrated understanding of the space and time complexities associated with each algorithm by showing gathered empirical evidence for each implemented algorithm's complexity in written reports.
- Created a grocery list web application using Vue.js, Node, Express, and MongoDB that hashes and salts user passwords.
  - [grocery.tylerbheaton.com](http://grocery.tylerbheaton.com)

## EXPERIENCE

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### BYU: Biochemistry

Bioinformatic Consultant

Dec 2020 – Present

Provo, UT

- Used Linear Regression Models to correlate protein expression of three potential prostate cancer oncoproteins to prostate cancer aggressiveness.
- Used Python to download and parse publicly available genetic data and R statistical software and the ggplot2 package to generate scatter plots with regression lines showing correlation and 95% confidence intervals to indicate uncertainty
- Co-Author of paper accepted to the Molecular Cancer Research journal and the Oncogene journal

### BYU: Bioinformatics Capstone

Student

Jan 2020 – Apr 2020

Provo, UT

- Created a web application in Shiny R which parses, processes and stores data from images of medical test results. Also creates interactive graphs showing trends in patients' medical history.

### BYU: Computational Biology

Teaching Assistant

Sept 2020 – Dec 2020

Provo, UT

- Taught difficult statistical concepts to students such as: when to use a Mann-Whitney test vs a t-test.
- Taught students to implement statistical tests in the R language and display results with the ggplot2 package

### Revere Health

Medical Assistant/Scribe

Sept 2020 - Present

Provo, Ut

- Create medical records of office visits to the standard sufficient for hospital coders', medical doctors', and patients' needs.
- Obtain patients' medical histories and vitals, perform electrocardiograms, and manage the physician's daily schedule.

## PERSONAL

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- LDS Missionary in Peru | Fluent in Spanish | Leader of Groups of 20 Full-Time Volunteers
- Volunteer at: 4-H Mentoring | National Ability Center at Park City Resort
- Hobbies: River Guide on Colorado River | Cycling (raced in LOTOJA) | Avid Skier
- Awards: State Tennis Champion | Pickleball Champion