# Theodore Scot Nielson

## Education

480-504-9055・scotnielson616@gmail.com・tscotn.github.io

*Brigham Young University, Provo | GPA: 3.75*                                    *January 2019 – December 2022*

B.Sc. in Statistics, Data Science Emphasis, Minor in Design Thinking and Computer Science
- Together For Greatness Scholarship | Department of Statistics
- B. John Garrick Scholarship | College of Physical and Mathematical Sciences
- 2021 Data Science Club Data Analysis and Visualization Hackathon – First Place
- National Statistics Honor Society Member | Mu Sigma Rho

## Tools & Skills

**Data Science and Analytics:** Python (3 years), R, SAS, Google Colab, Jupyter Notebook, Scikit-learn
**Data Engineering:** MySQL, DynamoDB, AWS Serverless Stack, Spark, Hadoop
**Software & Web Development:** Typescript, C++, Flask, HTML/CSS/Javascript, Brightspot, Heroku, Shell
**Visualization & Design:** Tableau, Seaborn/Matplotlib, Figma, Photoshop, InDesign
**Languages:** Fluent in Spanish

## Relevant Coursework

Statistical and Computer Programming, Database Management, Data Structures, Discrete Mathematics, Multivariate Calculus, Advanced Probability and Inference, Computational Linear Algebra, ANOVA, Regression and Classification, Big Data, Machine Learning, Deep Learning, Natural Language Processing, Technology Interfaces

## Experience

### IT: Software Developer Analyst Intern

*Flint Hills Resources, Koch Industries*                                    *May 2021 – August 2021*
- Implemented filters and custom database query options to Typescript/React/MySQL app for efficient project planning
- Provided statistical insight to data teams developing ensemble models for anomaly detection and signal processing
- Built recursive AWS Lambda process to integrate app with database and cloud storage system saving $5000/month
- Conceptualized scalable data engineering app to process and ensure data quality and visibility of 100s of event schemas

### Web Developer & Designer, Data Analyst

*BYU Career Services*                                    *August 2020 – present*
- Led design and development website for STEM education and recruiting reaching 30,000+ students and employers
- Migrated HTML/CSS/Javascript website to custom CMS, built 4+ JQuery RSS feeds and embedded 50+ Tableau dashboards
- Developed over 30 informative, personalized and user-friendly pages in collaboration with 15 different departments
- Supported and performed analytics for 5 websites across BYU campus, conducted interviews for incoming data analysts

### Statistics Research Assistant: Podcast Data and Monetization

*BYU Department of Statistics*                                    *June 2021 – present*
- Collected, cleaned, and analyzed 10+ data sets in multiple formats from APIs, databases, online platforms and submissions
- Designed and ran a 14 question survey, communicated reports and findings to a team of 3 statisticians
- Produced, edited and published trial podcast to collect sample data and gain personal insight into research questions
- Performed analysis on 2TB Spotify dataset of 100,000 podcasts in Python

## Projects

- Chess Database Python Analysis and Visualization in Google Colab https://tinyurl.com/3uadf8ww
- BYUradio Web Automation in Python with Tkinter GUI https://github.com/tscotn/byuradio-auto-gui
- "Embroidefy" Python Flask App on Heroku https://embroidefy.herokuapp.com
- Markov Chain Text Generation and Natural Language Processing for Twitter Bots

## Other

| | | |
|---|---|---|
| Company Outreach Officer | BYU Data Science Club | *August 2021 – present* |
| SAS Coding Teaching Assistant | Department of Statistics, BYU | *April 2020 – June 2021* |
| Student Radio Producer | Top of Mind with Julie Rose, BYU Broadcasting | *January 2019 – August 2020* |
| Volunteer Representative in Chile | The Church of Jesus Christ of Latter-day Saints | *September 2016 – October 2019* |