

Zach Sahlin

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RELATED COURSEWORK

- Algorithms & Abstract Data Structures
- Machine Learning & Intelligent Systems
- Data Science Algorithms
- Operating Systems
- Database Management Systems
- Programming Languages & Compilers
- Linux & DevOps

TECHNICAL SKILLS

- Languages: C++, Java, Python, C, SQL
- Tools: Git, Linux, Docker, Jupyter, GitHub Actions, Postgres, AWS Lambda, AWS S3
- Libraries: TensorFlow, PyTorch, pandas, NumPy, scikit-learn, Matplotlib

EDUCATION

Gonzaga University | Spokane, WA

August 2019 – May 2023

BS in Computer Science, Minor in Applied Mathematics

- Graduated Magna Cum Laude
- President's List: Fall 2019, Spring 2020, Spring 2021
- Dean's List: Fall 2020, Fall 2021, Spring 2022, Spring 2023

PROJECTS

Machine Learning for Real Estate | Python, SQL, PyTorch, JS

Fall 2022 - Spring 2023

- Senior Design Project
- Collects data on historical rental prices, crime data, and school scores.
- Predicts future rental prices.
- Displays historical prices and predictions as a web app.

Stock Predictor 🤖 | Python, TensorFlow, AWS Lambda, AWS EventBridge, selenium

Spring 2023

- Collects historical and current data from various sources using APIs and web scraping
- Stores and retrieves data on AWS S3.
- Uses an LSTM to predict weekly percentage increase.
- Displays predictions on a web app.
- Utilizes GitHub Actions for a CI/CD pipeline to test and publish to AWS Lambda.

Spotify Predictor 🤖 | Python, pandas, scikit-learn, Matplotlib

Fall 2020

- Uses a decision tree and kNN to predict whether I will skip a song with an 81% accuracy.
- Connects to the Spotify API to gather additional data on each song.
- Uses Matplotlib to create plots to analyze the dataset.

RESEARCH

Long Span Truss Analysis and Optimization | MATLAB

Spring 2023

- Worked with Dr. Sara Ganzerli and civil engineering students.
- Developed a script to analyze and optimize a truss to minimize material use within the load constraints.

WORK EXPERIENCE

Gonzaga University | Teaching Assistant

August 2022 – May 2023

- Teaching assistant for Operating Systems, Computer Security, and Internet of Things.
- Graded programming and written assignments.

iD Tech | Online Private Instructor

June 2021 – August 2022

- Tutored in 8 different computer science topics, including C++, Java, and Python.
- Completed over 200 private lessons.
- Formed relationships with long-term clients, and developed further skills in communication and coding.
- Collaborated with other instructors to improve teaching methods.