Nick Clouse

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SKILLS

Languages Java, Python, JavaScript, R, HTML, CSS, SQL

Frameworks / Libraries / Tools MySQL, PostgreSQL, React, Next.js, Spring/Spring Boot, Hibernate, JUnit,

SciKit-Learn, Torch, NLTK, Flask, HoloViz, Git/GitHub/Gitlab

WORK EXPERIENCE

MSU - Space Science & Engineering Lab

May 2025 - August 2025

Software Engineering Intern (Paid)

- Improved data parsing efficiency by 62.5% by utilizing multiprocessing in Python.
- Developed a scalable data pipeline to process 1–2 GB of sensor data (measurements, health, position) from an instrument aboard the International Space Station in near real time.
- Built a Python-based web application with InfluxDB integration to visualize pipeline data, enabling easier monitoring and analysis.
- Engineered and optimized Ruby scripts to ensure fast, reliable data transfers between satellite and ground systems.

Iron Horse Golf Course

May 2023 - August 2024

Outside Services

- Provided high-quality member support by assisting guests and ensuring smooth operations during arrivals and events.
- Maintained and prepared golf equipment (clubs, carts, balls) with attention to detail, ensuring readiness and reliability.
- Supported tournament logistics by setting up equipment and coordinating event preparations.
- Delivered excellent customer service by addressing member needs quickly and professionally.

Projects

It Goes

A full-stack web application for tracking and blogging ski trips, including Mapbox integration for backcountry route visualization. Built RESTful web services with Java & Spring (backend), connected to a Next.js & Tailwind CSS frontend, using PostgreSQL/PostGIS for spatial data and AWS S3 for image storage.

InitMusic

A full-stack web application to play music and build playlists. Built with a small team using Java, Spring, Gradle, JUnit, MySQL, HTML5, CSS, JavaScript, and RESTful web services. Integrated an external API for music streaming and utilized Git/GitHub for version control.

Book Recommender

A recommendation system using Python, scikit-learn, Flask, and Natural Language Processing (NLP) techniques to suggest books based on user preferences and sentiment analysis. Implemented data preprocessing, TF-IDF vectorization, and cosine similarity to generate personalized results.

Juice Bottler

A multi-threaded orange processing plant simulation using Java and Apache Ant, leveraging data and task parallelization to efficiently process and bottle virtual oranges. Utilized Java multithreading to simulate multiple plants with concurrent workers, optimizing performance and resource utilization.

EDUCATION

2022 - 2026 B.A. Computer Science, B.A. Data Science at Carroll College (Helena, MT) GPA: 3.7/4.0