# **Mausham Bista**

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## **Education**

Bachelor of Science in Computer Science | Brigham Young University - Idaho |

September 2022 - Present

Rexburg, Idaho

- Relevant Coursework: Data Structures, Web Programming, Calculus, Introduction to Databases, Applied Calculus for Data Analysis, Technical teamwork
- Academic Projects: Designed and developed a gym website, created a digital Blackjack game and collaborated on a cybersecurity awareness campaign, utilized data visualization to identify the LED bulb lifespan model
- Received BYUI Grant (2022-2023, 2023-2024) for outstanding academic achievements

Skills

Languages: Python, Django, C#, Java, R, Pandas, NumPy

Web Technologies: HTML, CSS, JavaScript, React
Tools: Git, Visual Studio, GitHub
Databases: MySQL, PostgreSQL

### **Experience**

Tutor | Brigham Young University-Idaho | Rexburg, Idaho

September 2023 - Present

- Tailored tutoring for 500+ students, resulting in a 30% average improvement in students' math grades
- Improved problem-solving skills, leading to a 20% increase in personal academic performance
- Created a supportive environment, boosting student confidence in complex math concepts

Data Analyst Intern | Data Research Council For Students | Kathmandu, Nepal

March 2021 - August 2021

- Analyzed large datasets using Python, SQL, and R, to provide valuable insights for strategic decision-making
- Produced **50**+ impactful **data visualizations** in a team of 8, elevating the team's understanding of complex data patterns
- Spearheaded process optimization efforts, resulting in a 12% increase in project delivery efficiency through cross-functional collaboration

#### **Projects**

Spotify Data Pipeline (ETL)

- **Built an ETL pipeline** to extract, transform, and load Spotify playlist data into S3 using AWS Lambda, processing over **100**+ JSON files
- Extracted and transformed album, song, and artist metadata, creating 3 clean datasets (CSV) and eliminating duplicates by 30%
- Automated data workflows by migrating processed files in S3, improving data management efficiency by 40%

Database Setup for E-commerce Insights

- Designed and implemented a data loading script using **Python**, **SQL Alchemy**, and **PostgreSQL** to streamline the import of 5 e-commerce datasets, enhancing data accessibility for analysis
- Developed a schema for 4 relational tables, ensuring data integrity through foreign key constraints, which improved the reliability of over **100,000 transactional records**
- Executed random sampling of 10,000 rows from large datasets to **optimize memory** usage, facilitating efficient data processing and analysis in a resource-constrained environment

#### Bank Stock Analysis

- Employed advanced techniques such as moving averages and correlation analysis to gain insights into stock behavior and relationships, enhancing understanding of financial market dynamics
- Conducted thorough **exploratory data analysis (EDA)** on stock prices of major banks, spanning from the financial crisis of 2007-08 to early 2016
- Leveraged **pandas** to fetch and manipulate stock data, calculated returns, identified key financial events, and visualized stock performance using seaborn and **matplotlib**