Tristan Michael Hertzog

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Education

Western Washington University, Bellingham, Washington
Data Science B.S. and Mathematics Minor
GPA: 3.50
Expected graduation: June 2026
<u>Relevant Course Work</u>:
Data Structures, Object Oriented Design, Database Systems, Linear Optimization, Linear Algebra, Probability and Statistics, Data Modeling and Visualization, Machine Learning, Deep Learning, and Natural Language Processing.

Skills

Insightful and analytical Data Scientist with hands-on project experience

Data Science Libraries: NumPy, Pandas, Scikit-learn, Matplotlib, Pytorch, Seaborn, Beautiful Soup, and Weights & Biases
Programming Languages: Python, SQL, R, Java, JavaScript, C#, Racket, and Dart

Projects

Python Neural Network:
Developed a fully custom **neural network** from scratch in **Python**, implementing **forward/backpropagation**, with the option of **minibatch** or **stochastic gradient descent**, and model training without external ML frameworks.

Data Augmenter:
Built a web-based image augmentation tool using **JavaScript**, **HTML**, and **CSS**, leveraging **Fabric.JS** to apply visual filters and generate bulk user-specified batches of modified photos for download.

Senior Project Golf AI Coach:
Creating an advanced golf-training system in **Python** using **PyTorch**, designed to record and analyze swing footage. The system employs a **convolutional deep neural network** to evaluate biomechanics, track performance metrics, and deliver personalized, interactive improvement feedback.

Extra-Curricular Activities

Academic Student Software Club　　　　　　　　　　　　　　　**Dec 2022 - Ongoing**
Registered club at Western Washington University
Role: Club Founder, Lead Officer
The Academic Student Software Club is a STEM aligned club that focuses on collaboration between students.

<u>Position Held and Responsibilities in Organization</u>
As the Founder and current Lead Officer of the club, my responsibilities include organizing events, creating agendas, collaborating with members, and ensuring compliance with university and club policies.

<u>Projects:</u>
Web development, Sudoku generator/solver, 3D modeling, Unity game development, and quantum computing application

Work Experience

***Woodland Park Zoo*, Grounds Crew Member** – Summer 2024, Seattle, WA

***Pizza Hut*, Cook** – 2021-2022, Everett, WA

Lawn Care and Vacation House Management – 2017-2019, Mill Creek, WA