Angus Read

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EDUCATION

Western Washington University – MS Computer Science **Sep 2022 – Dec 2023**

- Area of research is Machine Learning, specifically tensor completion and analyzing sparse sampling methods.
- Awarded a full-time graduate TA-ship in Fall 2022/23, Spring 2022/23 and half-time in Winter 2023.

Western Washington University – BS Computer Science, Minor Mathematics **Sep 2018 – June 2022**

- Accepted to Computer Science Pre-MS program which entails taking several graduate-level courses.
- Awarded an undergraduate TA-ship during my senior year.
- Elective coursework is centered around Data Visualization, AI, and Mathematics.

Snohomish High School **Sep 2014 – June 2018**

- Played varsity soccer in 11th and 12th grade, captain of JV team in 10th grade.
- Studied 3 years of German and still maintain an elementary level of fluency.

RELEVANT PROJECTS

Brain Viewer (Python) **Sep 2021 – May 2022**

- Developed in a group as my senior project using GitHub for source control: **Link**.
- Interactive UI that visualizes connectome projections between some source point and all other points in the brains of mice using a method of estimation based on experimental data (kernel regression).
- Resulted in a research paper submitted to IEEE VIS 2022: **Link.**

Various AI Projects (Python) **Jan 2022 – June 2023**

- Derived and implemented models for Lasso, Gradient Descent, and Stochastic Gradient Descent Algorithms.
- Worked on some simple NLP projects: classifying words as complex/simple, and probabilistic n-gram language modeling/sentence generation.
- Implemented a CNN in pytorch to classify images as real or fake (AI-generated). Resulted in 99.86% dev accuracy on 15327 samples.

Deterministic Tensor Completion (Python) **Sep 2022 – Present**

- Worked with my advisor and other collaborators to write a paper as part of my MS research.
- Experimented with parameter tuning and sampling techniques (uniform random, hypergraph mask expansion) of tensors using my research advisor's max-quasinorm minimization algorithm: **Link.**
- Discovered a correlation between error and second eigenvalue of the graph mask's adjacency matrix.
- Resulted in a research paper accepted to SampTA 2023: **Link**.

SKILLS

C Java Python Linux C# Julia MySQL Git

RELEVANT WORK EXPERIENCE

Western Washington University **Mar 2022 – Present**

Teachers Assistant/Grader *Bellingham, WA*

- Courses: Dynamic Web Pages, Data Structures**,** Database Systems**,** Analysis of Algorithms/Data Structures
- Responsibilities include grading programs, exercises, quizzes, and exams as well as holding weekly labs and office hours.

Exa Data and Mapping **Mar 2022**

Freelance Programming Support *Bellingham, WA*

- Developed scripts in Python to convert data tables to formats that could be readily imported to other software for summary, graphical display, and statistical analysis.