Angus Read

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EDUCATION

Western Washington University – MS Computer Science   **Sep 2022 – Dec 2023**
- Machine learning research; compressive sensing, tensor completion and analyzing sparse sampling methods.
- Awarded a graduate TA-ship in Fall 2022, Winter 2023, Spring 2023 and Fall 2023.

Western Washington University – BS Computer Science, Minor Mathematics   **Sep 2018 – June 2022**
- Accepted to Computer Science Pre-MS program which entailed taking several core graduate-level courses.
- Elective coursework was centered around Data Visualization, AI, and Mathematics.

RELEVANT WORK EXPERIENCE

Western Washington University   **Mar 2022 – Dec 2023**
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.

PROJECTS

Brain Viewer (Python)   **Sep 2021 – May 2022**
- Developed in a group using GitHub for source control: **Link**.
- Interactive UI that visualizes the estimated strength of connections between some source point and all other points in the brains of mice resulting in a research paper submitted to IEEE VIS 2022: **Link.**

Various Machine Learning Projects (Python)   **Jan 2022 – Dec 2023**
- Derived and implemented models for LASSO, gradient descent, and stochastic gradient descent algorithms to gain some fundamental ML knowledge.
- Worked on simple NLP projects (complex/simple word classification, n-gram language modeling, word vectorization) to get a better understanding of the topic.
- Strengthened understanding of deep learning and model tuning skills by implementing a CNN in PyTorch to classify images as real or AI-generated.
- Recreated experiments from **this paper** which entailed decoding hand location from real data consisting of electrical signals recorded from the brains of monkeys.

Graduate Machine Learning Research (Python)   **Sep 2022 – Dec 2023**
- Collaborated with 3 other authors to run experiments studying the effectiveness of different sampling techniques for tensor completion**,** resulting in a research paper accepted to SampTA 2023: **Link**.
- Modeled receptive fields from mice and used those as inspiration for sampling pixels in the context of image reconstruction. This resulted in a research paper, for which I am the lead author.

SOFTWARE

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4 years of academic experience in each: Python   Java   Sklearn   PyTorch   Numpy   Linux   Git

SKILLS

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3 years of experience in each: Machine Learning   CSCI Research   Algorithm Analysis   Linear Algebra