Darryen Sands

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Oshawa, Ontario

EDUCATION

Computational science (Master's degree) Sep 2022 - Oct 2024
Ontario Tech University • Oshawa, Ontario

- Graduated with a GPA of 4.0 on a 4.3 scale.
- Worked on creating an algorithm to detect clustering within Markov chains for my thesis. I utilized skills in mathematical modelling, statistics, data visualization, and programming.

Physics and Applied Mathematics (Honours Bachelor's degree) Sep 2016 - Apr 2022
Ontario Tech University • Oshawa, Ontario

- I wrote an undergraduate thesis and used convolutional neural networks to analyze gravitational waves in image data. I acquired skills in machine learning, programming, and mathematical analysis.
- I was the President of the Physics club, which was an extracurricular organization hosting events related to physics for undergraduate students.

SKILLS

- I know multiple programming languages (Python, Java, C++, MATLAB, FORTRAN) and have experience in using multiple operating systems (Windows, Linux). I also have experience in version control systems (Git).
- I have used machine learning in a few of my courses, my undergraduate thesis, and my graduate thesis. I have experience with neural networks (convolutional neural networks, RNNs), supervised learning (Regression, SVMs, Random Forest), and clustering (k-means, DBSCAN).
- I have quantitative/analytical skills in mathematical modelling, statistics, surveying, problem-solving, and critical thinking.
- I have also developed soft skills in my studies, which includes presentation skills, time-management skills, teamwork, and communication skills.

WORK EXPERIENCE

Teaching Assistant Sep 2022 - Present
Ontario Tech University • Oshawa, Ontario

- Worked as a teaching assistant for introductory linear algebra courses for engineering and science students, where classes comprised of 30-40 students per tutorial.
- Taught concepts that were fundamental for succeeding in the course and improved students' understanding of the course material.
- Provided individualized support during office hours to help students' understanding of complex

topics, which helped students to feel more confident in their abilities.
- Graded assessments and provided feedback to over 200 students, contributing to enhanced comprehension in course material.
- Fostered an inclusive environment for students to learn and engage with content and this resulted in increased student participation.

Laboratory Instructor   Sep 2021 - Dec 2021
Ontario Tech University • Oshawa, Ontario

- Worked as a lab instructor for an upper year physics course. I taught a lab of 20 students the basics of the Linux operating system and the terminal. Students gained knowledge of essential skills for the Linux operating system.
- Prepared lab environments and Raspberry Pis for computational physics experiments. This involved creating presentations and presenting them to students. This ensured that students had time to focus on experiments.
- Emphasized programming in Python to solve physics problems. Students improved problem-solving ability through the use of computation.
- Handled troubleshooting and resolved technical issues. This allowed students to focus on the experiments with their full attention.