

Abhinav Parbhakar

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WORK EXPERIENCE

iNautical Software LLC

Machine Learning Intern

Edmonton AB

05/2023 - Present

- Tasked with building a recommendation system for the posts on the KangarooStarPost app.
- Started by building a multi-label **text classification** model to automate label generation.
- Utilized data-preprocessing techniques such as tokenization and data augmentation to transform training data with the help of **SciKit-Learn**.
- Utilized knowledge of **Transformers** and **PyTorch** to implement a fine-tuned **BERT classification** model.
- Currently in the process of integrating model with the existing **data pipeline**.

University of Alberta

Digital Content QA

Edmonton AB

06/2023 - Present

- Tasked with maintenance of the **ualberta.ca** domain which consists of around **90,000 web pages**.
- Responsible for dealing with issues concerning **responsive page design**, layout issues, broken links and **SEO**.
- Leveraged prior experience with **HTML, CSS, and Bootstrap** to remedy design issues and used my attention for details to fix other errors that were found in pages.
- Resulted in fixing **150+ pages** with broken content so far, resulting in a better user experience.

PROJECT EXPERIENCE

Space Exploration Alberta Robotics University of Alberta

Computer Vision and Automation Engineer

Edmonton, AB

05/2023 - Present

- As a part of the SPEAR club, tasked with building the **computer vision** and **navigation system** for the rover.
- Collaborated with team members to build a socket-to-socket communication network that would remotely deliver images from the rover to the base station.
- Implemented detection of Aruco Markers by utilizing the computer vision **OpenCV** library.
- Currently working on implementing and automating navigation system.

University of Alberta

Portfolio Project

Edmonton AB

06/2023 - 07/2023

- Motivated to create a website that consolidates my experiences while displaying my development skills.
- Utilized **Next.js (TypeScript)**, a framework built on top of **React.js**, with **TailWind CSS** for the front-end.
- Leveraged the **AWS API Gateway** service and **Next.js** to create **API's** and **DynamoDB** to store data.
- Resulted in a website that is **SEO** optimized and displays a modern and **responsive design**.

University of Alberta

Student Project

Edmonton AB

01/2023 - 02/2023

- Tasked with building an IR (**Information Retrieval**) System that supports Boolean queries.
- Programmed in **Python**, utilized various algorithms for normalization to process JSON files.
- Using zoning for documents, built inverted indexes to store corpus vocabulary.
- Processed and normalized Boolean queries that were combinations of OR's, AND's, NOT's.

EDUCATION

University of Alberta

Bachelor of Science in Computing Science

Edmonton AB

Graduation in April 2024

SKILLS

Artificial Intelligence: Machine Learning, NLP, Transformers, Deep Learning, PyTorch, TensorFlow, SciKit-Learn

Software Development: Next.js, React.js, SEO, Responsive Design, Tailwind CSS, Bootstrap, DynamoDB, AWS

Programming Languages: C, C++, Java, JavaScript, Python, R, TypeScript