Arden Monaghan

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EDUCATION

University of Alberta — Sep. 2022 – May. 2027
Bachelor of Science Specialization in Computing Science — *Edmonton, AB*

EXPERIENCE

Secretary — April 2024 – Present
Undergraduate Artificial Intelligence Society — *Edmonton, AB*

- Collaborating with a group of 10 executives to oversee the seamless execution of club activities, strategize innovative implementation plans, and meticulously record meeting minutes.
- Coordinate and orchestrate UAIS meetings, events, and presentations, ensuring that all responsibilities and logistical details are managed effectively.
- Assisted in facilitating the introduction of new students into using AI by orchestrating and overseeing educational workshops and seminars.

Bakery Clerk — April 2020 – August 2023
Safeway — *Wetaskiwin, AB*

- Provided personalized assistance to customers in selecting bakery products, efficiently handled and communicated with customers regarding special orders, and ensured timely fulfillment of unique requests.
- Efficiently organized and replenished display cases and shelves, ensuring optimal product presentation and accurate labeling to maintain a visually appealing and customer-friendly environment.
- Collaborated with a team of 12 coworkers to complete tasks efficiently. ensuring seamless teamwork and consistently meeting daily production targets and customer satisfaction goals.

PROJECTS

MentorMatch UAlberta | *Python, Quart, PyQt6, Huggingface, Docker* — August 2024

- Automated the task of matching Mentors/Mentees using an **AI Algorithm** for the **Science Mentorship Program** at **UAlberta** reducing time spent matching students to Mentors from **10 working days to 10 minutes.**
- **Managed** a team of three developers in collaboration with **various operational teams at the University of Alberta** to understand requirements and **deliver a high-value product that significantly enhanced program efficiency.** Ensured adherence to project timelines and maintained code quality throughout the development process.
- Delivered a desktop application that ran **multiple sentiment models** efficiently on the local machine itself, **allowing private student data to remain private.**

NHL Positivity Index | *Python, HuggingFace, LoRA, Seaborn* — March 2024

- Conducted **Sentiment Analysis** techniques on NHL subreddit data using Praw API to determine the positive sentiment scores of 32 NHL teams.
- **Finetuned** cardiffnlp/twitter-roberta-base-sentiment-latest with data to create Chelberta Model which achieved an **accuracy score of 81.2** improving from the base model of 79.2 on our custom hockey sentiment dataset.
- Featured on CBC radio, and around various hockey social media sites across Canada.

LocalParse | *Python, PyQt, Chroma, Langchain, Ollama* — Sept 2024

- Developed a secure PyQt-based desktop application with **Llama 3 model integration**, ensuring client **data privacy** through local processing while providing a simple, user-friendly interface for enhanced usability.
- Implemented **Retrieval Augmented Generation** techniques using **Langchain** and **Chroma Databases** to retrieve and prompt of specific chunks of local documents for accurate and efficient prompting.
- Implemented **Version Control Analyzer**, by using Model prompting tools to look through document and retrieve and clearly explain differences between versions of a file.

TECHNICAL SKILLS

Languages: Python, Java, JavaScript, C, C++, MySQL
Technologies/Frameworks: React, Quart, Qt
Developer Tools: Git, Docker, AWS