Zachary Batten

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Education

Memorial University of Newfoundland
Jan. 2019 to Current

B. Science, Computer Science Major

Experience

Event Coordinator
Sept. 2020 to Sept. 2022

Computer Science Society

- Coordinated a range of events aimed at fostering relationships between students.
- Spearheaded workshops and game nights tailored for Computer Science students.
- Engaged in bi-weekly executive meetings to determine the society's future direction and event planning

Logistics Lead
Oct. 2020 to Feb. 2022

Hack Frost NL

- Instrumental in the formative stages of the organization, contributing ideas and strategic insights.
- Led a dedicated team to successfully manage the logistics for the inaugural and subsequent hackathons (2021 and 2022).
- Established and monitored weekly goals to ensure smooth team operations.
- Collaborated with external partners to source products and services vital for the hackathons.
- Continuously updated the Hack Frost website to keep participants informed and engaged.

Projects

NovaStar

- Designed an AI agent that plays StarCraft II using Deep Q-Learning Network (DQN).
- Enhanced the standard DQN with Dueling architecture, improving learning efficiency and stability.
- Designed the agent to interact with the environment, store experiences, update policies, and synchronize networks.

MuseGenAI

- Developed a dynamic Music Generator, leveraging OpenAI's GPT-4, GPT-3, and GPT-3 Turbo AI engines.
- Users can customize music generation, choosing style, genre, number of notes, and instruments.
- Creativity of the music is adjustable via a temperature slider, adding a unique layer of customization.
- Generated music can be saved as MIDI files and played directly within the app.
- The application is constructed with React.js (frontend), Flask (backend).

Patio Teams

techNL Hackathon

- Led the team to first place victory through effective collaboration and strategic planning.
- Pioneered the project idea, gaining unanimous support from team members.
- Co-produced the project and presented a social media app designed to facilitate collaborations among developers.

Technical Skills

- **Language experience**: Python, Javascript, C++, Java
- **Libraries & Framework**: Flask, Node.js, Pandas, JUnit, Scrapy, React
- **Technologies & Tools**: AWS, PostgreSQL, Windows, Docker, and Linux.