Bjorn Christensen

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Recent grad seeking full-time employment in the field of computer science with a focus on, but not limited to, machine learning and data science

Education

McGill University — Montreal, QC
Bachelor's Degree in Computer Science, East Asian Studies, Minor in East Asian Language — *Sep. 2019 – Jan. 2024*

Experience

Data Collection and Analysis Intern — Jan. 2024 – Feb. 2024
Eduworks — *Corvallis, OR*

- Performed product testing on third party software
- Worked with Google Forms to collect user experience data
- Used Trello to manage workflow

Game Dev McGill — Oct. 2019 – April 2023
McGill University — *Montreal, QC*

- Created numerous games using C# and C++ as part of a team
- Utilized robotics research and game design knowledge to implement various path planning models for AI

Lettuce Club McGill — Sep. 2021 – Dec. 2023
McGill University — *Montreal, QC*

- Co-founded club and worked as an Event Coordinator

Projects and Research

Golf Ball Detection Model | *OpenCV, Python, C++, Visual Studio, Faster/Mask R-CNN* — April 2024 – Present

- Developing a model to track golf balls for an in home golfing simulation product
- Testing effectiveness of a Mask R-CNN model versus a Faster R-CNN model in retrieving translational and rotational values of an object between images
- Uses simple kinematics and noise generated from a predictive logistic regression model to simulate ball flight paths

Image Generation Model Research | *Python, GAN/DRAGAN, Git, PyTorch, TensorFlow, CelebA* — April 2023

- Researched to reproduce the findings of Kodali et al.'s paper "On Convergence and Stability of GANs"
- Explored efficacy of a Generative Adversarial Network (GAN) and Deep Regret Analytic GAN in escaping *Mode Collapses*
- Utilized a PyTorch DRAGAN implementation and tested on the MNIST and CelebA datasets

NLP Research for Classification | *Python, Naive-Bayes, BERT, Git, Kaggle, sklearn, LLM* — March 2023

- Implemented a Naive-Bayes Model from scratch and compared it to a pretrained BERT Model in classifying IMDB reviews as "positive" or "negative"
- Investigated attention matrices to determine which weight distributions favored correctly versus incorrectly labeled reviews

Technical Skills

Languages: Python, Java, C#, C/C++, SQL (MySQL), JavaScript, HTML/CSS
ML Models: CNN, Faster/Mask R-CNN, GAN/DRAGAN, BERT, LLM, Generative, Classification, Predictive, NLP
Developer Tools: Git, Docker, Kubernetes, Tableau, Power BI, Google Colab, VS Code, Visual Studio, Excel, Vim
Libraries: Pandas, NumPy, Matplotlib, SciPy, PyTorch, TensorFlow

Additional Education

Mandarin Language Studies — 2022
Shantou University — *Guangdong, CN*

Danish Language Studies — 2018 – 2019
Clavis Sprogskole — *Roskilde, DK*