# KALEB HUNEAU

#### Third Year Mathematics and Computer Engineering at Queen's University

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**(**807) 630-9159

in Kaleb Huneau

C Kaleb-Huneau

## **EXPERIENCE**

#### Teaching Assistant for Engineering Design

#### **Queen's University**

September 2022 - Present

 Helped students improve technical writing and understand the design process by assisting in tutorials, providing feedback on deliverables, and answering questions

#### **NSERC Machine Learning Research**

#### **Queen's University**

May 2022 - August 2022

- Derived Statistical Mechanics and Nosé Hoover dynamics for neural networks
- Subclassed Keras models to implement thermostated gradient descent
- Reduced computing time from days to under one hour by leveraging a mostly idle compute cluster

#### **Physics Research Assistant**

#### **Queen's University**

🛗 July 2021 - August 2021

- Software development with Python, Numpy, Signac, Matplotlib, and Custom Libraries
- Computed statistical mechanics for naval ship architecture with Tensornetworks

#### Residence Don

#### **Queen's University**

🗎 September 2020 - May 2022

- Completed overnight on-call rotations, building rounds, and helped with emergencies
- Planned programs and offered support to first year students

## **PROJECTS**

#### **QMIND Project Manager**

#### **Pretraining in Reinforcement Learning**

May 2022 - Present

- Worked with director to create a timeline and interview club applicants
- Onboarded the team by running coding workshops and working through reinforcement learning examples

#### QMIND Team Lead

#### **Arrhythmia Detection and Classification**

- Researched methods for preprocessing and feature extraction on time series data, constructed models to classify heartbeats
- Helped team members by answering questions, and discussing ideas
- Achieved a classification accuracy of 95%

# **EDUCATION**

# Mathematics and Computer Engineering

#### **Queen's University**

September 2019 - April 2024

#### French Immersion

**DELF B2 Certified** 

**2019** 

## **SKILLS**

Technical Writing Communication

Presenting Critical Thinking

Process Optimization

Data Structures Algorithms

Software Development

C, C++, Python, Java, KNIME(SAS)

Tensorflow, Keras, OpenAI

# **COURSEWORK**

- Engineering Design and Communication
- Economics and Business Practices
- Probability Theory
- Data Analytics and Machine Learning
- Data Structures and Algorithms
- Software Engineering
- Advanced Mathematics

# **EXTRA**

- Medical Innovation Hackathon
- University Chess Nationals
- Chess Club President (Hammarskjöld)
- Math, Physics, and CS Tutor

# **REFERENCES**

#### **Greg Van Anders**

- Research Supervisor
- Email: gva@queensu.ca

#### Wesley Forget

- Residence Life Coordinator
- Phone: (613) 305-2875