DUNCAN CLARKE

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EDUCATION

QUEEN'S UNIVERSITY

Kingston ON | 2017 - Present
Bachelor of Computing (Hons.)
Specialization in Cognitive Science
Dean's Honour List:
2017-18, 2018-19, 2019-20
GPA: 3.67 / 4.3

SKILLS AND TECHNOLOGIES

- Advanced proficiency with Python and Java
- Experience with Haskell and Prolog
- Aptitude with HTML, CSS, JavaScript, and React
- Familiarity with ML libraries TensorFlow and PyTorch
- Fluent in French

PROJECTS

Machine Learning Sudoku Solver | 2020

- Reads photograph of Sudoku puzzle using computer vision techniques
- Recognizes puzzle structure and digits using MNIST dataset and PyTorch
- Solves puzzle with backtracking algorithm

Custom New Tab Page | 2019

- Local HTML file using CSS and JavaScript to create a stylized new tab page for browser
- Contains links to most used websites
- Displays updated date, time, and local weather

2-Player Games – Reinforcement Learning | 2020

- Iteratively computes optimal policies for 2-player games using every-visit update and policy iteration
- Prisoner's Dilemma, Matching Pennies, RPS

n-Queens – Artificial Intelligence | 2019

- A Python implementation of Sosic-Gu QS4 Algorithm to solve the n-Queens problem
- Based around min-conflicts heuristic and iterative repair

WORK EXPERIENCE

SCIENCEQUEST

Instructor | Summer 2020

- Worked remotely, creating digital STEM-based lessons for children aged 6-13
- Created original coding activities with Python, Java, HTML, CSS and JavaScript
- Filmed and edited weekly instructional videos

VANDERMEER NURSERY

Head of Farmer's Market | Summer 2019

- Promoted from cashier/merchandiser
- Organized and stocked fruit and vegetables to be sold, working in a team
- Tracked sales to replenish stock accordingly and communicated information to superiors
- Prioritized tasks and delegated work to colleagues

TUTORBRIGHT

Tutor | Summer 2018

- Prepared lesson plans catered to the student's abilities and goals
- Worked through the material with students in an engaging manner to ensure comprehension
- Communicated progress and future plans with parents

RELEVANT COURSEWORK

- Linear Algebra
- Discrete Mathematics for Computing I/II
- Computer Architecture
- Data Structures
- Algorithms
- Human-Computer Interaction
- Artificial Intelligence
- Neural and Genetic Cognitive Models
- Reinforcement Learning
- Database Management Systems (In Progress)