

PENGNAN FAN

McGill University

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EXPERIENCE

Research Intern - McGill University

Temporal Action Localization on Hockey Videos

Dec 2019 - Now Montral, Canada

- Supervised by Professor Martin Levine from Intelligent Multi-model Video Analysis Lab at McGill Centre for Intelligent Machines.
- Assisting PhD students on building a hockey video temporal action location dataset (Tempucky)
- Traing BSN/Dual Encoding Network on the Tempucky dataset
- Implementing a video labelling tools in Python3

Machine Learning Intern - Huawei Technologies

Face Identification with Neural Architecture Search

May 2019 - Aug 2019 Beijing, China

- Internship program in summer 2019 at Huawei Beijing Research and Development Centre
- Applying PDARTS/PC-DARTS/Single-Path NAS to search for high efficiency face identification models
- Holding company-wide seminars about AutoML-NAS papers
- Assisting Huawei Noah's Ark Lab on NAS experiments

Student Mentor

McGill CSSA Mentor Program

Nov 2019 - Mar 2020 Montreal, Canada

- Volunteer program held by McGill Chinese Student and Scholar Association for helping incoming Chinese students

TECHNICAL SKILLS

- Programming Language: Python, Java, C, CUDA C
- Editor: VS Code, Eclipse, PyCharm
- ML: PyTorch, Scikit-Learn, Pandas, OpenCV
- Software Engineering: UML, Umple, Git, Gherkins, JUnit
- Graphics: OpenGL(Java-based)

PERSONAL SKILLS

- Having strong leadership in group works
- Ability to learn new skills fast
- Ability to work under pressure
- Ability to concentrate on long-term goal
- Willing to help others

EDUCATION

Bachelor of Software Engineering

Department of ECE, McGill University

January 2018 - Now

CGPA: 3.64/4.0

Graduation: Expected in Winter 2021

PROJECTS

Video Temporal Labeling Tool

- A side project developed during my working as a research intern at McGill CIM
- GUI-supported video labeling tool implemented in Python3 with OpenCV
- Available on GitHub

AI Player for Saboteur

- A group project from COMP424 at McGill, which a class competition of playing a two-player board game Saboteur
- Implemented with annealing algorithm
- Achieved a rank of 7/161 in a tournament competition (Top 5% in class)

Quoridor Game

- A group project from ECSE223 at McGill, which is one of the two Griffin Projects of that class (We voluntarily ask the professor and TAs to apply stricter standard to us than to other groups on evaluation)
- A GUI-supported board game with loading, saving and replaying mode implemented in Java

Modified MNIST

- A group project from COMP551 at McGill, which is a class competition on a modified MNIST dataset (MNIST with noise added to background)
- Developed our model based on LeNet 5
- Achieved an accuracy of 0.97466

LEGO EV3 Robot

- A group project from ECSE211 at McGill, which involves tasks such as wall following, navigation, localization, color identification and coda can pickup
- Developed on a LEGO Mindstorm EV3 robot with Java/LeJOS
- Successfully finished all tasks in the final competition (only a few groups achieved that)