Frédéric Branchaud-Charron

https://dref360.github.io/

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EDUCATION

SHERBROOKE UNIVERSITY
MSc by Research in Computer Science
Expected Dec 2018 | Sherbrooke, QC
GPA: 3.88/4.3

BSc in Computer Science
Dec 2016 | Sherbrooke, QC
Dean's List (2 times)
GPA: 3.99 / 4.3

LINKS

Github:// **Dref360**
LinkedIn:// **fredericbranchaudcharron**

COURSEWORK

GRADUATE
Advanced Machine Learning
Time series
Open Source Software Engineering
(Teaching Asst)
Assembly and Python programming

UNDERGRADUATE
Artificial Intelligence
Functional Programming
Computer Graphics

OPEN-SOURCE

KERAS
Collaborator, Member • Sequence API •
SSIM Loss • Tensorflow backend •
keras-contrib • keras-transform

SKILLS

PROGRAMMING
Over 5000 lines:
Python • Tensorflow • C# • LaTeX
Over 1000 lines:
Pytorch • SQL • MongoDB • JS • Haskell
• PowerShell
Familiar:
Java • C++ • F# • Bash

EXPERIENCE

SHERBROOKE UNIVERSITY | Research internship
May 2016 – Aug 2016 | Waterloo, ON
- Used siamese network for vehicles matching.
- Developed algorithms for blobs separation.
- Developed a saliency detection model 3x faster than the previous state-of-the-art with the same accuracy.

GENETEC | Software engineer internship
Sep 2015 – Dec 2015 | Montréal, QC
Jan 2015 – Apr 2015 | Montréal, QC
May 2014 – Aug 2014 | Montréal, QC
- Backend C# development
- Cloud setup automation with PowerShell
- Video processing with Silverlight
- Improved building time by 80%

RESEARCH

VIDEOS & IMAGES THEORY AND ANALYTICS LABORATORY OF SHERBROOKE UNIVERSITY. | MSc student
Jan 2017 – Present | Sherbrooke, QC
Worked with **Prof Pierre-Marc Jodoin** and **Miovision inc.** to improve current methods of localization in low frame-rate settings. I worked on high-level features like centroid estimation, direction estimation and I built a model to predict if a car is parked from a single frame.

VIDEOS & IMAGES THEORY AND ANALYTICS LABORATORY OF SHERBROOKE UNIVERSITY. | Undergrad student
Sep 2016 – Dec 2016 | Sherbrooke, QC
I developed multiple deep learning models to perform background subtraction. I implemented a SSIM loss and submitted it to **keras-contrib** The results are available on my **Github repository**.

SCHOLARSHIPS

2017	MITACS Acceleration
2017	FRQNT, MSc Scholarship
2017	Hydro-Québec, Recruitment Scholarship
2016	NSERC, Experience Awards (IUSRA)
2015	NSERC, Experience Awards (IUSRA)

ACADEMIC EXPERIENCE

2017	Reviewer MICCAI 2017
2017	Co-organized **TSWC**, presented at CVPR 2017
2017	MIO-TCD: A new benchmark dataset for vehicle classification and localization Z. Luo, F. Branchaud-Charron and P. Jodoin. Submitted