Léo Valais

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Driving licence • Native • TOEIC & Semester abroad

Education

EPITA / CTI

Le Kremlin-Bicêtre 2015-2020

Computer Science engineering school. Specialization in image processing and machine learning.
Experience in raytracing, distributed computing, GPU computing, medical imaging, deep learning, real-time graphics, signal processing, algorithmic complexity, scientifc Python, etc.

LRDE

Common Lisp Le Kremlin-Bicêtre 2017-2020

EPITA's research and development laboratory. Second specialisation in research in computer science and a project supervised by laboratory's full-time researchers.

Publications

European Lisp Symposium 2019

Common Lisp In proceedings April 1, 2019

"Implementing Baker's SUBTYPEP Decision Procedure", based on my research work at LRDE. Presentation of an alternative implementation for SUBTYPEP, a standard Common Lisp predicate. Involves type theory, type representation and performance concerns.

Experience

Satellite image processing internship at Airbus Defence & Space

C++ Sophia Antipolis June-September 2020

Implementation and improvement of a cloud altitude estimation method. Based on stereovision by using the physical gap between optic sensors on PLEIADES satellites. Involves stereocorelation, epipolar geometry, Digital Elevation Models, image processing and denoising methods, prototyping with Python, etc.

Teaching assistant C • Unix • C++ • Java • SQL

Le Kremlin-Bicêtre January-December 2019

Teaching assistant for third-year EPITA students. Responsible for tutorials, workshops and school projects in several languages and technologies.

Software development internship at BeSport

OCaml Paris September-December, 2018

Modernization and deployment of a static website generator written in OCaml. Currently used to generate the website *ocsigen.org* holding the documentation of the Ocsigen project.

Skills

C++ **Python** C C# .NET Java **Common Lisp** Clojure(Script) OCaml LaTeX Web
Image Processing Image Synthesis Machine Learning Unity Docker Linux macOS

Some selected projects

Ship classification model

Python Keras

Ship classification model based on Xception using Keras.

Melanoma detection model

Python xgboost scikit-image

Automatic melanoma detection method written in Python. Uses scikit-learn and the XGBoost model.