FULL-TIME JOB

> Graduating from a Master ès Science in Communication Systems at EPFL, I am looking for a full-time job in the industry. My field of work is mainly the Visual Computing and Image Processing one combined to Machine and Deep Learning.

>>> EDUCATION

MSc. in Communication Systems

2019-2021



- ▶ EPFL (Swiss Federal Institute of Technology in Lausanne)
- Specialization in Signals, Images and Interfaces
- Thesis' title: Qualifying (Smartphone) Digital Camera Fidelity at SICPA SA

BSc. in Communication Systems

2015-2019



- ▶ EPFL (Swiss Federal Institute of Technology in Lausanne)
- Visual Computing Track
- Thesis' title: Simulation of moiré effects for counterfeit prevention at Innoview Sàrl

Year abroad as a foreign student

2011-2012



- ▶ Little Rock Catholic High School for Boys, AR, USA
- Year of study and cultural experiences in Arkansas, USA
- Consequently improved my english skills and had the opportunity to play basketball

>>> EXPERIENCE

Graphical Security Intern

2021/02-2021/08



- SICPA SA, Prilly, CH
- EPFL Master Thesis done in industry

Project Assistant / Auxiliary / Teaching Assistant

2018/01-2021/02

▶ EPFL (Swiss Federal Institute of Technology in Lausanne)



- Assistant of operations manager for production launch, backups management, automation scripts. Support for websites redesign project, CMS migration, new graphical chart
- Data mining and analysis for the refactoring of Continuing Education group

MAIN PROJECTS

- Qualifying (Smartphone) Digital Camera Fidelity
- Develop and select quality metrics for camera qualification of smartphone checking security stamps
- ▶ Establish model and relation between field metrics and lab metrics

▶ GAN-based Finger Vein Image Augmentation for Biometric Authentication

- Generation of large set of FV images from small set of real images using deep generative models
- Design of a GAN-based data augmentation algorithm for synthesization

Simulation of Moiré Effects for Counterfeit Prevention

- > Recreation of arrays of lenses from depth images in MatLab
- Simulation of moiré effects at nanoscopic scale in Blender

Multiple Generative Adversarial Networks Analysis for Predicting Photographer's Retouching

- Building of deep neural network to recreate an artist's retouching of an image over thousand of images
- Analysis of different GAN models

>>> EXTRA-PROFESSIONAL ACTIVITIES

Basketball

- Ex-player in 2nd Swiss division from 2012 to 2020, team captain for three seasons
- Assistant coach for multiple camp of about 100 children of age 10 to 15

Volunteer for multiple sport events and organizations



26 years old - Swiss

- 0 Lausanne, VD, Switzerland
- +41 77 454 57 54
- 1 samuel.dubuis@netplus.ch
- samdubuis.github.io
- () samdubuis
- in in/samueldubuis
- æ **Driving licence**

LANGUAGES

French - C2 English - C1 German - B1 Italian - A2 (Certificate of Advanced English)

FIELDS

- Signals and Images Processing
- **(** Computer Vision
- Machine Learning
- 4 Deep Learning
 - Data Analysis

TECHNOLOGIES

- Python </>> PyTorch
- </> TensorFlow </> RePast

</>

JAVA

</> git

MatLab

- OpenCV Git
- () LaTeX WP

TOOLS & OS

- </> Jupyter
- >_ **Terminal**
- 0 Blender
- Gimp
- </> **VS** Code
- d Overleaf
- A Linux

</>>

</>

Windows