



## WORK OFFER

Ref. No. CH-2020-000218

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### Employer Information

**Employer:** Institut for Information and Communication Technology de la HEIG-VD  
Rue de Galilée 15  
Yverdon-les-Bains  
Switzerland

**Website:** <http://www.stephan-robert.ch>

**Location of placement:** Yverdon  
**Nearest airport:** Geneva  
**Working hours per week:** 41.0  
**Working hours per day:** 8.2

**Number of employees:** 640  
**Business or products:** Recherche

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### Student Required

**General Discipline:** 27-MATHEMATICS AND STATISTICS  
40B-PHYSICS

**Field of Study:** 27.0101-Mathematics, General.  
27.0303-Computational Mathematics.  
40.0810-Theoretical and Mathematical Physics.

**Completed years of study:** 4

**Student status requirements:** required during the whole period of internship

**Language required:** English Good

#### Required Knowledge and Experiences:

Student in Mathematics preferred. Student must be enrolled during internship.  
Student from excellent university with excellent grades. Extremely good knowledge in mathematics and knowledge in programming (Python) and machine learning is required.

#### Other requirements:

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### Work Offered

In collaboration with NetGuardians SA:

NetGuardians SA is a Swiss FinTech company active in the domain of financial fraud prevention and risk management. Its award-winning products are used by more than 50 Tier 1 to Tier 3 banks and financial institutions in Europe, Asia, Middle East, Africa, and North America to detect and prevent banking fraud schemes in real-time. Its solution integrates with several core banking systems (transactions, databases, network, front-office, back-office, e-banking), retrieves and analyzes financial and operational data in real-time. When a suspicious pattern of activity is detected (hinting to a possible internal or external fraud), based on complex data mining, rules-based logic and machine learning algorithms, a real-time alert is issued to the customer so investigative actions can be taken. NetGuardians and HEIG-VD has conducted research projects since 2017, where machine learning algorithms for customer profiling have been developed. Since then, these algorithms have been implemented at several retail banks in Switzerland and abroad to successfully prevent banking fraud, significantly reduce false positives (up to 83%), and improve fraud risk management.

**Number of weeks offered:** 22 - 26

**Within the months:** 01-NOV-2019 - 31-OCT-2020

**Or within:** -

**Company closed within:** -

**Working environment:** Research and development

**Gross pay:** 2000 CHF / Month

**Deduction to be expected:** 10%

**Payment method / time of first / payment:**

**Latest possible start date:**

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### Accommodation

**Canteen at work:** Yes

**Expected type of accommodation:** to be defined depending on availability

**Accommodation will be arranged by:** LC Lausanne

**Estimated cost of lodging:** 700 CHF / Month

**Estimated cost of living incl. lodging:** 1600 CHF / Month

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### Additional Information

Students with any NON-EU/EFTA nationality need to provide an official letter from their university, confirming that the traineeship is compulsory (IAESTE Switzerland will apply for visa and work permit). Student need to be enrolled during internship.  
Early offer.

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### Nomination Information

**Deadline for nomination:** 20-OCT-2019

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**Date:** 07-OCT-2019      **On behalf of receiving country:** Sabine Lenz