



Sylvain KRIEG  
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## EXPERIENCE

### ASTROCAST S.A.

03.2021-06.2022

#### SENIOR SOFTWARE ENGINEER

- Firmware development in C on STM32 for low power satellite receivers
- Software architecture, requirements and documentation
- Hardware interface library development in C++
- Integration testing in Python
- Unit testing in C with hardware mock using fff and gMock
- Azure devops CI pipelines configuration and Azure cloud management
- Implementation of communication encryption and device security
- MAC layer development

### ECOROBOTIX S.A.

09.2016-02.2021

#### EMBEDDED SOFTWARE ENGINEER

- C firmware development on STM32 for an autonomous weeding robot
- C++ and Java software development for GPS-RTK positioning system
- GPU image processing using Cuda and OpenCV
- Linux ARM board configuration and kernel object development
- Set up robot remote monitoring and update tool (aws, ssh, websocket)

### HEIG-VD, REDS

09.2013-09.2015

#### SCIENTIFIC COLLABORATOR

- FPGA development and testing for a 100Gb/s compression platform
- Java development of [Logisim](#), an open source electronic simulation software

### DEPSYS

01.2013-08.2013

#### EMBEDDED SOFTWARE ENGINEER

- Development of a monitoring software for smart-grid distributed power inverters.
- Websocket communication with embedded Linux platform in Java

### BOSCHUNG MECATRONIC

10.2010-09.2012

#### EMBEDDED SOFTWARE ENGINEER

- Development of a firmware for airport weather sensors
- Firmware development in C on a dsPic32 using freeRTOS
- Real-time signal processing and low power management
- Product deployment and release management for France, Germany, Austria and Slovakia

### ISMECA SEMICONDUCTOR MALAYSIA

10.2010-09.2012

#### SOFTWARE TRAINEE

- Development of a real-time acquisition software (C & Labview)

## EDUCATION

### SCRUM MASTER PSM1 CERTIFICATION

2022

### HES-SO, LAUSANNE

2016

#### M.S IN COMPUTER SCIENCE (PART TIME STUDIES)

- Thesis about high resolution image processing acceleration in C++ using Cuda GPU and OpenCV.

### HAUTE ECOLE D'INGÉNIERIE ET DE GESTION DE VAUD (HEIG-VD), YVERDON-LES-BAINS

2009

#### B.S IN COMPUTER SCIENCE, EMBEDDED SYSTEMS

### BOBST S.A., LAUSANNE

2004

#### CFC (FEDERAL CERTIFICATE OF CAPABILITY) IN ELECTRONICS

## SKILLS

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**PROGRAMMING LANGUAGES** C | C++ | Java | Python | Labview  
**SOFTWARE DEVELOPMENT** Git | Jenkins | Azure Devops | Jira | Docker  
**FRAMEWORKS & LIBRARIES** Cmake | gTest/gMock | ZeroMQ | Protobuf  
**SYS ADMIN** Linux (udev, systemd, user-groups, iptables) | Ansible | Aws (EC2) | Azure cloud  
**HARDWARE PLATFORMS** STM32 | ATmega | CUDA | Nvidia ARM platform | Altera FPGA  
**LANGUAGES** ***Native:*** French ***C1:*** English ***B2:*** German