Sylvain KRIEG
Embedded Software Engineer
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EXPERIENCE

ASTROCAST S.A.
03.2021-06.2023

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 and Hardware automated 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

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