Sylvain Krieg

Software Engineer

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github | linkedin

Experience

Flybotix — *08.2023*

Senior Firmware Engineer

- C++ software development for indoor drone
- Linux Driver development for Nvidia tegra platform

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

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 — *10.2009-09.2010*

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 | Rust
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