Simone Minuz

Software Commissioning Engineer

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SUMMARY

Software Commissioning Engineer with 5+ years at Fives Intralogistics, commissioning parcel sorting systems from first start-up to final acceptance. Covers safety PLC software, Profinet networks, the C++ WCS layer and third-party integration (SICK scanning tunnels, camera vision, X-ray units, weighing modules), and coordinates teams and suppliers during commissioning. Builds Python tools for data and log analysis.

EXPERIENCE

Software Commissioning Engineer

07/2021 – Present

Fives Intralogistics S.p.A. · Lonate Pozzolo (VA), Italy

- Lead test and commissioning of parcel sorting systems and their SICK barcode scanning tunnels, from first start-up to final acceptance, coordinating the teams and suppliers involved.
- Integrated and validated third-party systems (HMI, SCADA, camera vision, X-ray units, weighing modules) and reached 99.9% system availability through targeted optimisations.
- Proposed and implemented software improvements that raised overall system performance by 20%.
- Program Siemens PLCs in TIA Portal, develop safety PLC software and validate final plant specifications against technical and regulatory requirements.
- Debug and develop the C++ plant software: high-level component, bridge and WCS.
- Run FAT, SAT and simulations with KPI checks, and write the reports and analysis behind project decisions, including reports for the customer.
- Diagnose Profinet networks and troubleshoot multi-vendor sites through every commissioning phase.
- Built Python and C# tools for Excel processing and statistics that noticeably reduced spec-validation and log-analysis time.
- Manage the bug and anomaly lifecycle in JIRA and Confluence, and write operating guides and troubleshooting documents.

Sales Assistant

11/2019 – 07/2021

Decathlon Cairoli · Milan, Italy

- Configured and managed customer devices: smartphones, tablets and laptops.
- Provided first-level technical support on devices and systems.
- Supported sales and advised customers, working to team targets.

PROJECTS

Sorter PPH Simulator, 3D sorter simulation

Personal project · TypeScript, React, three.js · Case study

- Built a 3D discrete-event simulator that measures a cross-belt sorter's throughput before it is built: 34k lines of TypeScript, 249 unit tests, 21 browser tests.

Backtrail, signed backups for machine folders

11/2026

Open-source project · Python, Tkinter, Ed25519 · GitHub · Case study

- Signed backups of PLC exports and machine settings, with a changelog of who changed what and why, and verified restore.

IP CHANGER, safe IP changes on Windows

08/2026 – 09/2026

Open-source project · Python, PySide6 · GitHub · Case study

SKILLS

Automation and control: Siemens PLC, TIA Portal, safety PLC, Profinet, HMI, SCADA
Commissioning and testing: FAT, SAT, functional testing, KPI simulation, troubleshooting, final acceptance
Integration: SICK barcode scanning tunnels, camera vision, X-ray units, weighing modules, multi-vendor systems
Software: C++, Python, TypeScript, React, three.js, C#, VBA, Git, PySide6, pytest
Tools and process: JIRA, Confluence, project coordination, team and supplier coordination

EDUCATION

Bachelor's programme, Informatica per la comunicazione digitale

2017 – 2020

University of Milan

LANGUAGES

Italian: native · English: B2

INTERESTS

Climbing, home automation.