Manuel Burgers

Embedded Software Engineer
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I am a highly organized person, responsible, committed and versatile with a great capacity of acquiring new skills. I have good references from previous employers.

WORK EXPERIENCE

Embedded Software Engineer (Medical Device)

(November 2018 – May 2019) NXTSENS Microsystems*. Montreal, Canada.*

- *Developing safety critical embedded software in C.*
- *Embedded software design.*
- *Writing testing and design protocols.*
- *Python GUI and scripts. Python programs to communicate with backend services.*
- *RSA encryption on embedded system.*
- *BLE (Bluetooth Low Energy).*
- *Debugging BLE communication using a sniffer.*

➢ Tools & languages: Windows, C, Python, Eclipse, Git, BLE (Bluetooth Low Energy), BLE sniffer, RSA (encryption), Doxygen, JTAG, Debugging, Oscilloscope

Software Developer (Automotive)

(May 2018 – October 2018) Nuance Communications Inc. *Montreal, Canada.*

- *Working on proof of concept*
- *Programming C++ audio applications for Linux*
- *Writing Python scripts*
- *Debugging and fix client bugs*

➢ Tools & languages: Linux, Windows, C++, C, Python, Shell scripts, Eclipse, Microsoft Visual Studio, JIRA, Mercurial, Git, Multithreading, gdbserver

Embedded Software Engineer (Home Automation)

(February 2017 – March 2018) Zennio Avance y Tecnología S.L*. Toledo, Spain.*

- *Programming microcontrollers (ARM Cortex-M) in C for domotics systems*
- *Writing software requirements and specifications*
- *Debugging (hardware) of previously mentioned developments*
- *Automatic tests, product prototype testing*
- *Python scripts to generate/modify HTML and XML files*
- *Product training for technical staff*
- *Researching communication protocols and new product functionalities*
- *Researching state-of-the-art technology to develop new products*

➢ Tools & languages: Linux, Windows, C, Python, Eclipse, XML, HTML, Jenkins, Doxygen, SVN, Visual Paradigm, Mantis, JTAG, Debugging, Logic Analyzer, Oscilloscope, Luxmeter

Jig & Tool Engineer (Aeronautics)

(November 2015 – March 2016) *Aciturri Assembly SA (Airbus Tier 1 supplier). Seville, Spain.*

- *Inspection and preventive maintenance of aeronautic tooling*
- *Support to the plant engineering. Participating in improvement projects*
- *Gathering and adding tooling information to SAP*
- *Designing auxiliary tooling using CATIA*

➢ Tools: Windows, Excel macros, SAP, CATIA V5

EDUCATION

Aerospace Engineer (Master's degree)

(2009 – 2015) Escuela Técnica Superior de Ingenieros (ETSI). *University of Seville, Spain.*
Master's Project: Modelling, Simulation and Control of a Hexarotor Vehicle.
Control of a Hexarotor equipped with an optical flow using the PX4 Autopilot controller and the Ardupilot project using C++.

(2013 – 2014) *Università di Pisa, Italy.* Erasmus Exchange Programme.

VOLUNTEER EXPERIENCE

(June 2016 – November 2016) World Wide Opportunities on Organic Farms. Canada.

LANGUAGE SKILLS

Spanish Mother tongue
English Professional Working Proficiency
Italian Limited Working Proficiency

ADDITIONAL FORMATION

Courses

(March 2016) Introduction to Computer Vision: developing applications using OpenCV (By Universidad Carlos III de Madrid through EDX)
(October 2017) Real-Time Bluetooth Networks (The University of Texas at Austin through EDX)
(Present) Python for Data Science (University of California San Diego through EDX)

COMPUTER SKILLS

Tools Eclipse, Jenkins, Doxygen, Subversion, Microsoft Visual Studio, Visual Paradigm, GIT, Mercurial, CATIA V5, Nastran/Patran, Simulink, SAP, Proteus, LabVIEW

Programming languages C, C++, Python, Shell scripts (Linux), MATLAB

Other skills Linux, Debugging, JTAG, ARM Cortex-M processsor family, I2C, UART, KNX Protocol, Arduino, BLE (Bluetooth Low Energy), JIRA, PX4 autopilot, Raspberry Pi, Computer Vision, Logic Analyzer, Oscilloscope, Luxmeter