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Embedded systems designer who has worked extensively in the rf/microwave/wireless industry, and has experience with the full software & firmware development cycle as well as hands-on experience in electronics manufacturing.

While not an rf design engineer per se, I do have a working knowledge of rf components and equipment, and the domain knowledge needed to design digital control circuits for such equipment, as well as familiarity with test equipment and the automation thereof. I have experience in testing and calibrating rf devices and in laying out rf pcbs in collaboration with an rf design engineer.

I have experience with remote work, and I have a distraction-free work environment including a basic electronics lab.

## SKILLS

Git, SVN

Linux, DOS, Bash, command line, shell scripting

C, Python, Java, HTML/CSS/JS; currently learning Rust

Bare-metal firmware, unit testing, static analysis, board bring up, debugging

Digital circuit design, including microcontrollers (mostly Microchip PIC processors)

Design for manufacturability and design for test

Schematic capture and PCB layout

Single Board Computers and industrial mcu boards

Communications protocols and interfaces such as GPIB (HPIB, IEEE-488), USB, SPI, I2C, UART (RS232, RS-485, RS-422), TCP/IP, UDP

Automation of test equipment such as network analyzers, spectrum analyzers, oscilloscopes, signal generators, DMMs etc.

Testing, calibrating, and troubleshooting digital, analog, and rf circuits

Experience working with legacy code and older languages

Experience porting applications between languages/platforms

Personal experience with Raspberry Pi, Beaglebone, Arduino / Atmel, SDR, IOIO, Android, Unity3D, LSL (OpenSimulator)

## JOB EXPERIENCE

Designed and programmed both GUI and command line software to control products and development boards and to acquire and analyze data from test instruments

Implemented computer-controlled calibration and testing of products for increased speed and accuracy

Analyzed and plotted test data in Excel

Wrote scripts to automate and test GUIs and to automate remote testing of devices

Wrote bare metal firmware (in C and assembler) for various embedded systems

Configured network modules for IoT products

Developed APIs, wrote specifications, acceptance test procedures, and other documentation

Provided remote support to coworkers and customers updating firmware, configuring and troubleshooting systems etc.

Wrote desktop software in Python, Java, Visual Basic, and other languages

Ported software from obsolete languages to current platforms

Tested and refactored legacy code

Designed digital circuits including Microchip PIC processor based microcontroller boards

Drew schematics and laid out both digital and microwave PCBs

Specified and purchased electronic components, circuit boards and subassemblies

Performed testing, tuning, component level troubleshooting and repair of microwave filter circuits including filters,

VCOs, PLLs, mixers, AGC etc., and various digital and analog circuits

Built prototypes, test fixtures, cables etc.