Andrey Loshchilov

Embedded Engineer / Tech Lead

Profile

Experienced HW Engineer with 3+ years in Embedded development, 7+ years of experience in Automated Production Test Systems architecture design and developing, soldering skills.

Skills and technologies, I work with:

- **C**/C++, Python.
- UART, I2C, SPI, JTAG, Boundary Scan, Ethernet, BroadR-Reach.
- STM32Fx/Gx/MP1x, ATSAM V7, NXP i.MX8, QCC302x.
- AOSP, U-Boot, Kernel, Drivers, Test Firmware, FW updaters, Control and Monitoring, statistics and data analysis software.
- Network Vector Analyzers, Spectrum Analyzers, Oscilloscopes, Logic analyzers, Signal generators, SDR.
- Schematics, PCB layouts: Zuken CR-8000, P-CAD.

Employment History

Principal SW Developer at SWTecNN, Nizhny Novgorod / UAE

October 2021 — Present

- AOSP porting to custom boards, configuration and development.
- uC Firmware for Microchip, Qualcomm QCC302x SOC.
- Schematic diagrams analysis.

Completed projects:

- Bluetooth media controller FW.
- Audio Modules monitoring suite FW.
- Firmware for LTE Modem and Navigation Receiver interfacing controller.
- AudioHAL Synchronous Audio output, DTB Overlay support U-Boot.

Lead Engineer (Production Test) at Topcon Positioning Systems, Moscow

May 2015 — September 2021

May 2015 – 2018: Engineer; 2018 – Present: Lead Engineer.

- Automated test & measurement stand architecture design.
- Discussion and coordination of architectural and design solutions.
- Taking part in the new products bring-up process.
- Developing SW & HW for Board-level production tests and for design verification purposes.
- Developing Test Firmware for SPARC (LEON) and ARM CPUs.
- Developing test software for OS Windows, Linux.
- Development of schematic diagrams.
- Diagnostic and investigation of failed devices, modules, components, and parts.

Details

Telegram: @aduff
Email: aduff@ya.ru

Date of birth
20.02.1990, 34 y.o.

Links

https://github.com/adufftpc
https://gitlab.com/aduff

Skills

Teamwork

Readiness for local/international business trips

Ability to Work Under Pressure

Soldering

Diagnostic

Problem Solving

Time Management

Hard Working

Ability to Learn Quickly

Ability to Multitask

Languages

English

Hobbies

Cycling, Skateboarding, Hiking, Ultimate Frisbee, Playing guitar.

Completed projects:

- Debug access API for LEON CPU (UART, JTAG).
- GNSS Simulator System (Control and monitoring, signal distribution network), providing enhanced repeatability of RF Tests.
- Complete software set for STM32MP1 based test adapter (U-Boot, Linux, User-level software, and periphery drivers).
- Service utilities for safe FW components update.
- SDR (NI USRP) based simulator of Satellite-Based Augmentation System signals (Omnistar / Terrastar).

SW Engineer at Freelance / Pet Projects

2017 — Present

- Drone based gas leak detector data acquisition (gas detectors, GPS Receiver, Camera) system for ARM micro-PC.
- Mobile gas leak detector data acquisition system for Windows PC.
- Temperature monitoring data analysis and visualization utility for metallurgical plant usage.
- STM32F7 based HIL (Hardware-in-the-loop) system for RF devices automated production test and qualification with TCP Server.

Engineer at Research Center SiriNN, Nizhniy Novgorod

April 2014 — May 2015

- Automated test & measurement bench architecture design.
- Developing HW and SW for RF-test equipment.

Field Application Engineer at Macro Group, Saint Petersburg

October 2013 — April 2014

- Consulting customers on the use of their products of interest (area: RF and microwave technology)

RF Engineer at Kvarz, Research Institute, Nizhniy Novgorod

July 2011 — October 2013

- Design and assembling of microwave passive devices, design of microwave structures.

Education

Master of Engineering, Nizhny Novgorod State Technical University n.a. R.E. Alekseev, Nizhniy Novgorod

2007 — 2013

Master of Engineering. Radio Engineering

Bachelor of techniques and technology. Design and Technology of Electronic Means.