

# GREG SCAFFIDI

Sr Embedded Software Engineer

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## CAREER SUMMARY

**20+ year Embedded Software Engineer** and Technical Leader specializing in architecting, developing, and optimizing firmware for a breadth of **ARM Cortex** processors (M0-A75) and custom embedded systems involving **FPGAs and DSPs**. Proven ability to deliver high-performance solutions using **C, Python, and Embedded Linux/Yocto**, with a track record of **reviving struggling programs**, leading cross-functional teams, and driving significant **cost savings** and product reliability improvements. Expertise in FPGA-Firmware integration and PS/PL boundaries.

## TECHNICAL SKILLS

**Languages:** C , Python , Assembly , C++ , JSON, Bash

**Operating Systems/Environments:** Embedded Linux , Yocto , RTOS , Bare-Metal Firmware , Android , Windows

**Hardware/Protocols:** ARM Cortex Processors , DSP , USB , BLE , SPI , I2C , GPIO , RS232 , RS485

**Development/Processes:** Device Drivers , Kernel Components , Root-Cause Analysis , TDD , Code Review , Refactoring , Bring-up , Defect Resolution , Unit Tests

## PROFESSIONAL EXPERIENCE

**RETYM, INC** | Austin, TX **Embedded Software Engineer (MTS)**

Jun 2025 – Oct 2025

- Developed tools and applications using C, Python, and Bash for interfacing with a custom optical networking DSP targeting high-bandwidth AI data-center connectivity applications.
- Utilized version control system (Git) effectively to manage source code repositories across multiple branches simultaneously.
- Developed software documentation including design specifications and API references for internal stakeholders.
- Updated and extended a Windows DLL interface to the SDK written in C.
- Championed a proof-of-concept Python Ctypes interface to the DLL for testing the SDK.

**AMD** | Austin, TX **Linux Software Development Engineer - Specialized**

Nov 2024 – Feb 2025

- Developed Linux tools in C++ and Python for monitoring and managing AMD GPU performance in data center AI applications.
- Implemented robust solutions for bare metal and containerized RHEL and Ubuntu server-grade deployments.
- Collaborated with cross-functional teams to optimize AMD GPU performance, leading to **enhanced data center efficiency**.

**OCTAVO SYSTEMS** | Austin, TX **Systems & Applications Engineer**

Jun 2023 – Apr 2024

- **Drove platform modernization** by upgrading the 'meta-octavo' Yocto Linux meta-layer to the 'kirkstone' revision for the OSD32MP1-RED board.
- Developed a Python application to automate real-time component price gathering from distributors, **eliminating countless hours of manual procurement time** (Python / JSON / Web APIs).
- Created a series of Python scripts to automate and guide the process of upgrading a Yocto meta-layer from one version to the next (Python / Powershell / Linux).
- **Successfully launched** the new OSDZU3 SiP product line by extensively reviewing Marketing Documentation & Technical Collateral.

**JMA WIRELESS** | Austin, TX **Sr. Firmware Engineer**

Oct 2022 – Mar 2023

- **Led critical debugging efforts** for 5G SW-defined radios, ensuring timely product launch and meeting customer satisfaction goals (Linux / C).
- **Revived a struggling New Radio program** by implementing features, improving testing, and assisting with certification (Linux / RTOS / C).
- Acted as a mentor in an Extreme Programming environment with a new graduate, focusing on C, Linux, RTOS, and Git best practices.

**PLANTRONICS, INC (POLY) | Austin, TX Sr. Software Development Engineer**

Aug 2020 – Oct 2022

- Developed and documented production-ready firmware for Android-based USB video conferencing cameras, facilitating seamless user experience (C, Linux, USB, Android).
- **Resurrected and revitalized a legacy log analysis tool**, expanding its functionality to support new and existing products, resulting in a **significant reduction in time spent on log analysis** for debugging (C++ / Visual Studio).
- Debugged and corrected SS+ USB gadget driver implementation and USB descriptor presentation (C / Linux).

**CIRRUS LOGIC, INC | Austin, TX Embedded ARM Firmware Engineer**

Nov 2016 – Aug 2019

- **Delivered power and latency optimized firmware** to consistently surpass customer requirements.
- Developed FW components and standards-compliant drivers (SPI, I2C, USB, BLE, CMSIS) contributing to the successful launch of several strategic audio chips (C / Bare-metal / ARM / RTOS).
- Wrote and analyzed implicit and explicit stakeholder requirements, feeding into comprehensive designs and test plans.

**INDEPENDENT CONTRACT | Austin, TX Consultant/Contractor | 2016**

Jan 2016 – Nov 2016

- **TenX Precision**: Designed and implemented early-concept FW for a sensor data acquisition system, facilitating real-time data collection and transmission via an IoT-like API (Bare-metal / C / RS-484).
- **Visio Financial Services**: Rapidly prototyped data-mining software solution in Python for automation of financial and inventory data analysis and reporting.

**POLYCOM, INC. | Austin, TX Senior Systems Software Engineer**

Nov 2011 – Jan 2016

- **Led the successful migration** of the ARM Cortex M3 codebase to support the advanced Cortex M4 processor, resulting in **performance improvements and significant cost savings** per year (C / BSP).
- **Led a team of 4+ software engineers** in the successful on-time launch of the Centro product for the company anniversary.
- Developed fault-tolerant firmware update scheme for programming microcontroller flash, **improving product reliability** (Bare-metal / C).
- Root-caused complex system issues as part of a tiered triage team under aggressive timelines, **ensuring customer satisfaction** (Jira / Defect Analysis).

**MCCI CORPORATION | Austin, TX Software Test Engineer**

Mar 2008 – Nov 2011

- Assumed ownership of Wireless USB and USB 3.0 testing effort, driving a test plan that incorporated a variety of host controllers and devices to facilitate the discovery and resolution of compliance issues.
- Maintained software tool for mining Jira ITS SQL database to produce valuable performance metrics (C / C++).
- Managed Microsoft Premier Partner Account, coordinating global test effort to ensure interoperability of beta software.
- Developed, documented, and maintained procedures for deploying comprehensive test environments, timely discovering and reporting issues relating to stability, compatibility, connectivity, and performance.

**SOUTHERNTIER NEWS COMPANY | Ithaca, NY Clerk (Manager in Training)**

Jul 2002 – May 2007

- **Demonstrated strong work ethic and trustworthiness** by routinely handling, reporting, and depositing thousands of dollars of cash daily, and being solely responsible for opening, running, and closing the store.
- **Drove customer satisfaction** by developing and employing superior multi-tasking abilities to serve numerous simultaneous customers, each with different, often conflicting, needs.
- **Exercised management and leadership responsibility** by training and supervising subordinate employees and reporting directly to the Director of Operations.
- **Implemented a Video Surveillance System** that successfully identified covert cases of theft from long-standing regular customers, protecting company assets.

**FORMAL EDUCATION**

University Of Texas @ Austin: Master of Science (ECE) – Software Engineering | 2013

- *Master's Report*: <http://hdl.handle.net/2152/22713> (Android / Java / SQL / R)

State University of New York @ Geneseo: Bachelor of Arts – Philosophy | 2005