

Contact

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Travis Turner

Software Engineer at Trident Research
Cedar Park, Texas, United States

Summary

Software Engineer with experience developing embedded, hardware-integrated, and enterprise software solutions across defense, semiconductor, and fintech industries. Proven background designing and implementing autonomous maritime and acoustic sensing systems, precision timing validation frameworks, and online banking software platforms. Skilled in Python, C++, C#, VB.NET, SQL, and embedded systems development, with hands-on expertise in sensor integration, hardware/software interfacing, automated test development, and production system support. Experienced in circuit board design, schematic capture, hardware troubleshooting, and integrated circuit validation. Adept at collaborating across multidisciplinary engineering teams to deliver reliable, scalable, and mission-critical solutions in fast-paced environments. Strong analytical, troubleshooting, and technical leadership abilities with a track record of improving software quality, test automation, and system performance.

Experience

Trident Research LLC

Software Engineer

November 2021 - Present (4 years 7 months)

Austin, Texas, United States

A Software Engineering position developing autonomous maritime and acoustic sensing systems for defense applications. Designed and implemented software for Unmanned Surface Vehicles (USVs), including autonomous station-keeping, GPS-guided navigation, power management integration, and acoustic data acquisition. Developed low-level hardware interfaces and embedded software for I2C-based smart batteries, environmental sensors, GPS modules, and vessel power management systems. Developed control software for a water sparker platform used in bathymetry, object detection, and harbor defense operations. Knowledgeable in Python, C++, and C#, with a strong background in embedded systems, sensor integration, hardware/

software interfacing, and mission-critical maritime defense applications. Adept at translating operational requirements into reliable, field-deployable solutions that support autonomous operations, maritime domain awareness, and acoustic sensing missions.

Q2 Software, Inc.

Software Engineer

February 2020 - November 2021 (1 year 10 months)

Austin, Texas, United States

Software Engineering position designing, implementing, integrating, and testing moderately complex software solutions for fintech and online banking platforms. Skilled in developing and supporting Windows-based front-end and back-end systems that integrate with internal and external services in live production environments. Experience with Python and SQL, with knowledge of JavaScript, HTML, and CSS. Experienced in troubleshooting, maintaining, and enhancing custom production features while collaborating across teams in Agile development environments.

Silicon Labs

18 years 11 months

Software Engineer

July 2018 - February 2020 (1 year 8 months)

Austin, Texas Area

Software Engineering position working with precision timing integrated circuits. Developed Python-based automated test suite and maintained a validation framework for a Precision Timing Protocol (PTP) Master Clock IC, focused on verifying compliance and functional correctness of the Best Master Clock Algorithm (BMCA) implemented by an external contractor. Designed and executed detailed test cases to validate algorithm requirements, protocol behavior, feature interactions, and edge-case handling. Collaborated across engineering teams to analyze results, identify defects, and improve software quality for high-precision network timing applications.

Associate Application Engineer

January 2008 - July 2018 (10 years 7 months)

Associate Application Engineering position performing hardware design, circuit board troubleshooting, and software development for an integrated circuits manufacturer. Skilled in circuit board design, fabrication, assembly, and component-level repair, with hands-on expertise creating engineering documentation including user guides, engineering change requirements, and

product test procedures. Knowledgeable in schematic capture using OrCAD, Cadence Concept HDL, and Intergraph Veribest. Experienced in developing object-oriented software libraries and automated test applications using VB.NET, C#, and WPF to support integrated circuit characterization, electronic test systems, and customer evaluation platforms.

Senior Engineering Technician

April 2001 - December 2007 (6 years 9 months)

Supported the development and validation of mixed-signal integrated circuits. Collaborated with Application and Design Engineers on research and development activities, schematic design using OrCAD Schematic Capture, product documentation, bills of materials, and engineering change implementation. Skilled in developing automated characterization and test equipment control software using Microsoft Visual Basic .NET to improve testing efficiency, data accuracy, and product qualification processes. Strong combination of hardware, software, and documentation expertise in fast-paced engineering environments.

Education

Texas State University-San Marcos

Bachelor's degree, Computer Science · (2013 - 2017)

Austin Community College

Associate's degree, Computer Information Technology · (2003 - 2007)