Neil P Turley

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Github

EXPERIENCE

McCoy Global Inc - Lead Software Engineer   2019-11 — Present

- Maintained embedded microcontroller firmware (C)
- Developed Data Acquisition/Reporting Software for Pipe Drilling Sensors (LabVIEW)
- Managed AWS resources and build pipeline infrastructure as code (Terraform, CloudFormation)
- Implemented HTTP API endpoints that accessed database (C#, DynamoDB, AWS)
- Added frontend features to web application (Angular, Typescript)
- Wrote API specification and validation framework (OpenAPI, AsyncAPI)
- Authored software development processes (e.g., planning, sprints, test periods, releases)
- Created manual test procedures and authored manual tests for desktop application
- Set up automated build/test CI system for desktop application

National Instruments, RIO Software - Staff Software Engineer   2014-01 — 2019-11

- Wrote FPGA System Integration for Five RIO Product Lines (LabVIEW, VHDL)
- Worked on Electron-based Automotive Database Editor (Typescript, React)
- Created a Test Result Analysis Framework (Python)
- Designed and Implemented Test Automation Frameworks (Python)
- Designed and Implemented a High Speed Data Transfer API (LabVIEW, VHDL, C++)
- Ported LabVIEW FPGA RIO Driver to Zynq Platform (C++)
- Proposed and Developed Hardware Anti-Cloning Mechanisms (VHDL, C++)
- Implemented CLIP Generation Utitility (C#, LabVIEW)
- Presented a Technical Session at NI Week 2017

BYU Physics Department, Nuclear Research Group - Lab Assistant   2010-10 — 2013-06

- Writing Data Acquisition Software (C#, C)
- Designing Digital Circuits and Layout (Mentor Graphics)
- Assisting Professors and Students to Collect and Analyze Meaningful Data (MATLAB)

EDUCATION

Brigham Young University   2008 — 2014
Bachelor - Computer Engineering

- Computer Architecture
- Real-Time OSes
- Operating Systems
- Embedded Systems
- Applied Cryptography

PROJECTS

Sing Together Online (https://singtogether.online)

- Virtual childrens choir web application
- Manages song assignments and user submitted recordings
- Buildless, client-only design using HTM, Preact, and Firebase

Latchup 2018: Netlistsvg (https://github.com/nturley/netlistsvg)

- Presented about schematic visualization software
- Github repo has over 230 stars

NIWeek 2017: Host Memory Buffer

- Introduced a low latency DMA interface
- How to optimize control loop determinism