# DYLAN TURNER

Electrical/Software Engineer

Highly skilled engineer with experience drawing from a wide breadth of technical knowledge, skills, and interests. I am passionate about tackling new challenges, learning new techniques, and driving innovation in ever-changing environments. I especially love doing more with less.

## CONTACT INFORMATION

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https://github.com/blueOkiris/
https://hackaday.io/KindaABigDyl/

## EDUCATION

BS in Electrical Engineering
- Rose-Hulman Institute of Technology
- Minor in Software Engineering
- GPA: 3.25

Achievments
- Dean's List All Quarters
- President's Scholarship Recipiant

## NON-TECHNICAL INTERESTS

Rose-Hulman
- Football Team (4-Year Letterman)
- Jazz Band (Bass Player)
- FCA

Music and Art
- Songwriter (on Spotify, Apple Music, etc)
- Multi-instrumentalist: Bass, Ukulele, Percussion, Guitar, etc
- YouTube Channel

Miscellaneous
- Member of Language Creation Society
- Poetry blog

## EXPERIENCE

**SOFTWARE ENGINEER** *Jun 2021 - Dec 2023*
*National Instruments (NI)*

NI Linux RT - 2023
- Feature lead for automated BIOS hotfixing
- Opkg architecture research and improvements
- ATS improvement and test development
- CVE and SPDX manipulation

Internal Linux Team - 2022
- Driver development in C++ and DKMS debuggin
- Distro development for NI products
- MI/Vision Linux porting effort

PXI/Sync and Platform Services - 2021
- C++ Driver Development

**SOFTWARE ENGINEER INTERN** *Jun 2020 - Aug 2020*
*National Instruments (NI)*

AUTOSAR (embedded automotive controllers) driver development in C++

**JUNIOR TECHNICAL INTERN** *Jun 2019 - Aug 2019*
*Collins Aerospace*

Responsibilities include Software architecture, AI Computer Vision, and MCU development for a UAS search and rescue drone. The idea was to build a drone to fly an automated S&R mission and find downed aircraft via AI using only off the shelf components.

**PRODUCT DESIGN ELECTRICAL ENGINEER** *Jun 2018 - Aug 2018*
*Northwind Electronics*

Designed prototype "smart-label" for medication bottles that can be turned on wirelessly just enough to update their e-ink display.
- Complex problem that required writing a GUI in C# to talk to writing device
- Efficient embedded C to parse compressed data fromt he C# application (sent over a special "long-range NFC") and output to the display
- Power engineering to make sure the device couyld get consistent power during writes which had to happen in a fraction of a second

## CORE TECHNICAL SKILLS

- Software Proficiencies: C, C++, C#, Python, Rust, Linux (Arch, Debian, Fedora, NixOS), RTOS, CLI Tools, VM & Containers, Bash, Assembly, Haskell, Java, OS Dev, CAD
- Hardware Proficiencies: Embedded Systems, Microcontrollers, IoT, PCB design, 3D printing, Verilog, NFC, Signal Processing
- Professional Strengths: Embedded Control Systems, Microcontrollers, Software Design, Architecture, and Engineering, Software Development Life Cycle, Verification and Testing, Project Planning and Collaboration, Product Requirements and Risk Assessment, Hardware and Software Integration, Documentation, Debugging and Technical Solutions

## MAJOR PROJECTS

Hardware
- Hackaday Blog Feature: "The BlueOkiris Gameduino Console" (2014)
- Hudl Remote v2, Open Source Hardware Alternative (2021)
- Hackaday Blog Feature: Game Card, Business card Multi-Cartridge Game Console (2021)
- Fight Key Wide, Leverless Fighting Game Controller (2022)

Software
- bgrm, Virtual background software for any application (2022)
- March Madness Predictor, From scratch genetic algorithm
- aip-man, Package manager for AppImages