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ETHAN KUNZ

ENGINEERING LEADER | R&D PROTOTYPING

Engineering Leader and R&D specialist with a decade of high-stakes technical experience—ranging from the extreme industrial environments of steel manufacturing to leading national security programs at Honeywell/KCNSC. Driven by a "servant-leader" philosophy, I thrive in high-pressure Quick React Contract (QRC) environments where agility and precision are paramount. A hands-on innovator passionate about the entire product lifecycle, I bridge the gap between strategic program management and deep technical execution, from board-level design and firmware programming to final system delivery.

EDUCATION

MBA (4.0 GPA)
LeTourneau University

B.S. Electrical Engineering
Missouri S&T (Cum Laude)

Biomedical Equip Tech (BMET)
Comm. College of the Air Force

CERTIFICATIONS

- **Active Security Clearance**
(Issued Jun 2020)
- **Knowledge Mgmt**
(SOUTHCOM)
- **Forklift/Aerial Manlift**
(Southland)
- **Confined/Open Water Diving**
(PADI)
- **US Customs Border Agent**

KEY AWARDS

- **5 BRAVO Awards** (Honeywell)
- **2 Patent Disclosures** (Li-Fi)
- **Army Commendation Medal**
- **Army Achievement Medal**
- **SGM Coin** (Expert Marksmanship)

PROFESSIONAL EXPERIENCE

Honeywell FM&T / KCNSC

Kansas City, MO

Senior Electrical Engineer (Prev: EE III, EE II)

May 2020 – Present

- ▶ **Strategic Leadership:** Served as the primary technical lead for Special Projects, directing the execution of multi-million dollar pulse power initiatives. Orchestrated the full lifecycle of complex systems, contributing thousands of direct engineering hours to ensure critical national security milestones were met on time and under budget.
- ▶ **QRC Success:** Executed a high-intensity Quick React Contract (QRC), coordinating a cross-functional team through 11-hour workdays to manufacture, test, and deliver 30 full-scale systems within a strict multi-month window. In a separate critical QRC, personally executed hundreds of hours of software testing in under two weeks, identifying and resolving fatal errors that saved 50% of the product deliverable.
- ▶ **R&D Innovation:** Proactively seized control of a strategic **six-figure R&D project** as electrical lead. Drove a major collaboration with Micro-Electronics that resulted in novel designs and three alternate functional prototypes beyond the original scope.
- ▶ **Program Modernization:** Spearheaded the design and testing modernization for three legacy NNSA components, successfully navigating nine distinct milestones past Final Design Review (FDR). Managed the complete design hand-off, ensuring all technical data packages met rigorous quality standards for long-term manufacturability.
- ▶ **Mentorship & Training:** Technical lead for a significant six-figure bi-annual training program, coordinating 50+ internal personnel and executive sponsors. Successfully cross-trained 7 teammates for critical roles by developing curriculum and justifying budget allocations to sponsors.
- ▶ **Efficiency Engineering:** Architected a security-compliant local network setup for a CMM room, saving an estimated **thousands of labor hours** (\$1M+ value) by streamlining data transfer workflows.
- ▶ **Patents:** Led R&D across 5 projects, resulting in **2 patent disclosures** in Li-Fi technology.

TECHNICAL EXPERTISE

Embedded & MCUs

C++ C# Python VBA
ESP32 STM32 MSP TI
RP2040 Teensy Beaglebone
Atmega Sensor Fusion

Hardware & Tools

Altium KiCad LTSpice
Logic 2.4 Mentor Graphics
Pulse Power High-Voltage
Fiber Optics Pneumatics
Hydraulics

Industrial Controls

PLC (Siemens/AB) HMI/VFD
FactoryTalk Wonderware
Proficy Controllogix
Safety Critical Systems

IDEs & Management

Visual Studio Keil
STM32Cube JIRA
MS Project Budgeting

AI & Modern Stack

Docker n8n Ollama CUDA
SQL HTML/JS Local LLMs

COMMUNITY

- FIRST Robotics Judge (2022–Present)
- Hogar Nazareth (Honduras Volunteer)
- CFC Manager (Fundraising Lead)
- Dream Center (Homeless Outreach)

Nucor Corporation

Longview, TX & Blytheville, AR

Electrical Projects Lead

Dec 2019 – Apr 2020

- Directed electrical modernization projects across three departments (200 personnel) at a massive 100,000 ton/year plate steel facility.
- **Key Projects:** Integration of a new steel Quench process, full redesign of the power feed system for 9 heavy industrial furnaces, and implementation of a modern ABB drive system to replace aging infrastructure.

Industrial Electrical Technician

May 2018 – Dec 2019

- Worked grueling 12-hour rotating shifts as the sole electrical technician responsible for the rolling mill and finishing departments, maintaining uptime in extreme environmental conditions.

Global Rescue Systems

Columbia, MO

Electrical Design Engineer

Aug 2017 – Mar 2018

- Operated as a non-profit consultant designing ruggedized life-saving devices.
- Developed prototypes for field systems used in disaster relief scenarios.

MILITARY SERVICE

US Army Reserves

MO & Honduras

Biomedical Equipment Technician (E5)

May 2011 – Jun 2021

- Served 10 years (including active duty) in critical leadership roles: **1st Platoon Sergeant** (leading 22 soldiers) and **NCOIC of Biomedical Section** (managing 8 technicians).
- **Deployment Impact:** Completed a 9-month deployment to Honduras supporting JTF-B. Served as Subject Matter Expert (SME) for the U.S. Embassy and drafted CAD layouts for a hospital expansion project.
- **Logistics Optimization:** Acquired and organized 100+ technical manuals to streamline maintenance operations, earning the Army Achievement Medal.
- **Innovation:** Redesigned duct ports during "Operation Appalachia Care," saving the unit tens of thousands of dollars. Designed and fabricated an optical phoropter counterbalance that significantly increased patient throughput (Army Commendation Medal).

Co-ops & Internships

- **Nucor-Yamato Steel (2016):** Electrical Engineering Intern.
- **Nucor Steel Texas (2015):** Electrical Engineering Intern.