Personal Details

Website – https://www.ekn.io Github – eriknyquist Email – eknyquist@gmail.com

Areas of Expertise

Programming Languages

C

C++

Python

UNIX shell scripting (bash, sh)

Tools/Technologies

Git Github

Gitlab

GCC/Clang

 ${\bf Gimpel\ PC\text{-}lint/Flexelint}$

Makefiles

 GNU ld (linker) scripts

Protocol Buffers (protobuf)

PyQt GDB

Valgrind

LATEX

Jenkins JIRA

Unity/CMock

D

Doxygen FreeRTOS

CAN/CANOpen

nRF52 SOCs

STM32 SOCs

PIC32 SOCs

Cypress/Infineon SOCs

Personal skills

- Test-driven development
- Fault finding and debugging on custom embedded systems
- Custom board/hardware bringup
- Firmware system design for memory constrained embedded systems
- Rapid prototyping/testing with Python or UNIX shell scripting
- MISRA C compliance via static analysis tools

Interests

- Compiler design & implementation
- Programming language design & implementation
- Playing music (drums, piano)
- Music recording & production

Erik Nyquist

November 24, 2025

An enthusiastic and skillful software/firmware engineer with over 12 YOE. Wide-ranging experience in design, development & validation for embedded software systems in the commmercial and medical spaces. Accustomed to delivering and enforcing high quality code, tests, and documentation. US citizen.

Experience

Sr. Firmware Engineer, NOVO Engineering Vista, CA

Aug. 2017 - present

Designing and developing firmware and software for commercial products and IEC-62304 compliant medical device products (RTOS and bare-metal).

- Participated in design/development of firmware for multiple medical device products (subcutaneous glucose monitoring patch, "smart" insulin pen cap, portable defibrillator system, DNA sequencing instrument)
- Participated in Design Verification testing for multiple medical device products
- Participated in creation of software development lifecycle and verification documentation for multiple medical device products

Software Engineer, Intel San Diego, CA

Aug. 2016 - Aug. 2017

Participated in development of low-level hardware drivers and firmware for Intel's low-power SoC products with a small team, including Intel's Galileo, Joule and Curie modules (Linux, RTOS and bare-metal). Most notably, the Intel Arduino 101 development/maker board.

- www.github.com/01org/corelibs-arduino101
- www.github.com/01org/Intel-Pattern-Matching-Technology
- www.github.com/01org/zephyr

SoC Software Engineer, Intel Ireland

Aug. 2012 - Apr. 2016

Started as an intern after college, became a permanent employee after 6 months. Eventually participated in development/testing of Linux-based software & drivers for Intel Quark SoCs, bringing the Intel Galileo board (first x86-based Arduino board) from design to market, pre-silicon emulation testing/verification for Intel Quark SoCs, and new silicon bringup for Quark SoCs.

Education

Master of Science, Computer Science

University College Dublin, Belfield, Ireland. Graduated 2015.

Bachelor of Engineering, Audio Visual Media Technology

Dun Laoghaire Institute of Art, Design and Technology, Dublin, Ireland. Graduated 2012.

Notable Github projects

- www.github.com/eriknyquist/ptttl
- www.github.com/eriknyquist/arduinozero-metronome
- www.github.com/eriknyquist/duckargs
- www.github.com/eriknyquist/deep_space_trader