

Erik Nyquist

June 18, 2022

Personal Details

Website – <https://www.ekn.io>

Github – [eriknyquist](https://github.com/eriknyquist)

Email – eknyquist@gmail.com

Areas of Expertise

Programming Languages

C

C++

Python

UNIX shell scripting (bash, sh)

Tools/Environments

Git

Github

Gitlab

GCC/Clang

Gimpel PC-lint/Flexelint

Makefiles

GNU ld (linker) scripts

Google Protocol Buffers

GDB

Valgrind

L^AT_EX

Jenkins

JIRA

Unity/CMock

Doxygen

Personal skills

- Test-driven development
- Fault finding and debugging on custom embedded systems
- 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

An enthusiastic and skillful software engineer, with a comprehensive knowledge of development and validation practices for embedded software systems. Accustomed to delivering and enforcing high quality code, tests, and documentation.

Experience

Senior Firmware Engineer, NOVO Engineering Vista, CA

Aug. 2017 - present

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

- Participated in design/development of firmware for multiple medical device products (closed loop insulin delivery system, "smart" insulin pen cap, portable defibrillator system), using various SoCs (nRF52, STM32, Cypress/Infineon, PIC32)
- 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

Developed 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).

SoC Software Engineer, Intel Ireland

Aug. 2012 - Apr. 2016

Participated in development/testing of Linux-based software & drivers for Intel Quark SoCs, bringing 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.