

# Max Knutsen

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work **Sonos** — Control API Software Engineer 2021 – 2023

- Added features to the Python script that generates the C++ code for all product APIs
- Debugged a variety of runtime errors occurring on the embedded Linux speakers
- Provided documentation that codified team best practices for our on-call rotation
- Created a GitHub Actions workflow to provide a clang-format label for GitHub reviews

**Amazon** — Embedded Firmware Engineer 2019 – 2021

- Contributed to firmware application development on the Alexa Loop
- Collaborated on integration test framework for rapid development on the Halo View
- Developed and deployed testing strategy for update stress test on Alexa Loop

**Microsoft** — Core UEFI Firmware Engineer 2017 – 2019

- Facilitated core UEFI support for the release of Windows for the NXP iMX8
- Modernized Python build tools for broader use in the open source community
- Designed and implemented individual driver update scenarios to improve serviceability
- Provided tools to capture and analyze security status of a host machine during boot
- Developed functional tests to verify the functionality of UEFI memory protections

**Microsoft** — Hyper-V Software Engineer 2017

- Built an internal tool to reorganize a host system's memory layout at runtime
- Refactored the attack surface of a driver to create a clear layer of input validation

**Facebook** — BLOB Storage Intern 2016

**Cougar Software** — Robotics R&D Intern 2014 – 2016

school **University of Maryland, Baltimore County** 2016

- Received a BS in Computer Science with a 3.3 GPA

**Retriever Robotics** 2013 - 2016

- Founding member, lead programmer, treasurer, and mentor on UMBC's VexU team