Ashley Knutsen

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work

BRINC Drones — Senior Embedded Engineer 2023 – Present

Created Python test environment and tools to assess 200 regression test runs per day

Drove CI/CD refactor to deliver an efficient release process with reproducible builds

Organized maintenance and distribution of hardware used for testing

Coordinated tests for software releases daily leading up to the launch of Lemur 2

Owned developing deployable Python infrastructure for consistency across teams

Managed test data with AWS tools such as EC2, DynamoDB, S3, and Lambda

Sonos — Software Engineer, Control API 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 codied team best practices for our on-call rotation

Created a GitHub Actions workow 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 — 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

Facebook — Intern, BLOB Storage 2014 – 2016

Cougaar Software — R&D Intern, Robotics 2014 – 2016

school

University of Maryland, Baltimore County 2016

Received a BS in Computer Science with a 3.3 GPA

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