Sean Elizabeth Hong

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EXPERIENCE

Sandisk Technologies (Formerly Western Digital Corporation) Milpitas, CA

Senior SSD Validation Engineer Apr 2024 - Present

- Evaluated consumer and data center Solid State Drive (SSD) power and performance metrics within the Device Validation team
- Analyzed SSD thermal throttling profiles by controlling chamber temperature and tracking device health metrics
- Developed validation plan for SSD data placement, improving random write performance by 20%
- Optimized test cases in custom Linux framework by removing redundancies in test coverage

Junior SSD Validation Engineer Jan 2021 - Mar 2024

- Automated NAND and device temperature monitoring by implementing PicoLogger sensors
- Resolved SSD unresponsiveness at high temperatures by optimizing Python scripts, resulting in their integration in future projects
- Integrated NI Data Acquisition (DAQ) API to an automated testing system and set up requisite hardware and software components

Jack Baskin School of Engineering, UC Santa Cruz Santa Cruz, CA

Undergraduate Student Researcher Apr 2019 - Aug 2020

- Conducted analysis of the temperature behavior of silicon thin films by utilizing MATLAB to solve the two-dimensional heat equation, taking into account both time and position dependencies
- Demonstrated the ability to predict the total temperature increase during exposure to multiple laser pulses on silicon surfaces

SKILLS

Programming Languages: Python, C, C++
Instruments: DC Power Analyzers, NI Data Acquisition (DAQ), Thermocouples, Thermal Chambers
Engineering: Non-Volatile Memory Express (NVMe), PCI Express (PCIe), FIO, IOMeter, Linux, Git

PROJECT

Autonomous IR Sensor Robot Sept 2019 - Dec 2019

- Constructed an autonomous robot that navigated a light-colored field, detected an IR beacon, and dispensed ping pong balls into a designated zone, achieving a 99% success rate
- Developed robot control system using analog filters, C language, and sensors, converting analog signals to digital for movement control

EDUCATION

University of California, Santa Cruz Sept 2016 - Dec 2020

Bachelor of Science, Electrical Engineering with Honors in the Major