Jesus Arias

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EDUCATION

The University of Arizona – W.A. Franke Honors CollegeMay 2023BS in Electrical and Computer Engineering, Cum LaudeGPA: 3.53Minor in Mathematics

EXPERIENCE

Reliability Engineer Microchip Technology

Chandler, AZ July 2023 – Present

- Led the reliability testing for 5 product lines, conducting extensive testing: DLT, HAST, etc.
- Researched and submitted over 30 Burn-In Spec product qualification reports.
- Created AEHR to MCC-LC2 burn-in program conversion schematic and procedure.
- Created Burn-In Board DLT programs from device specific waveform diagrams.
- Managed the usage of ELES Smart, ELES TTS1, MCC-LC2, and AEHR Max2/Max3 ovens.

Software Engineer Co-op IBM

Tucson, AZ June 2021 – June 2023

- Developed diagnostic health evaluation script deployed to over 4000 XIV/A9000/R. flash storage systems to identify potential failing BBU power supplies.
- Implemented script which negated the need for physical BBU power supply replacement for tens of thousands of servers worldwide.
- Diagnosed technical issues related to the XIV/A9000/R flash storage system server.

PROJECTS

Senior Design Project - Software and Hardware Design Team Lead *Tucson, AZ* **Microsoft****August 2022 - May 2023

- Pioneered a Two-Phase Immersion Cooling server for Microsoft using FC-72 Fluorinert.
- Designed and coded a GUI in Python for system and sensor control.
- Integrated a dynamically updating multi-axis graph in C++ and Python from 5 sensor's data.
- Directed total system wiring and total system design construction.
- Received Best Design Popular Vote.

Pipelined MIPS ISA Processor

- Constructed 5-stage, single cycle pipelined processor and verified on Xilinx Artix-7 FPGA.
- Implemented hazard-detection, forwarding, and multi-stage pipelining.

RELATED COURSEWORK & SKILLS

Programming Experience: C, C++, Python, Java, HTML, CSS, JS, MATLAB, MIPS, Assembly, GIT,

Hardware Description Languages: Verilog, VHDL, SystemVerilog

Coursework: Computer Organization, Digital Logic, Linear Algebra, Microprocessor Organization, Object Oriented Software Design, Computer Architecture, Digital Signal Processing,