JESUS ARIAS

480-939-1780 | jeariaas@gmail.com | linkedin.com/in/arias-jesus | github.com/jeariaas

EDUCATION

The University of Arizona Aug. 2019 – May 2023

Bachelor of Science in Electrical and Computer Engineering, Minor in Mathematics *Tucson, AZ*

Courses: Computer Architecture and Design I & II, Advanced Object Oriented Software I & II, Data Structures & Algorithms, Embedded Systems Design, Microprocessor Organization, Computational Techniques, Circuit Analysis, Systems Engineering Process, Semiconductor Processing, Digital VLSI Design, Computer Networking

EXPERIENCE

Software & Reliability Engineer I Jun. 2023 – Present

Microchip Technology Inc. *Chandler, AZ*

- Developed a Python script automating MTBFIT data parsing, reducing creation time from 2 weeks to 10 minutes.
- Implemented a file storage system script migrating burn-in recipes to a document library used by all MCHP sites.
- Directed the development and implementation of 3D printing capabilities in the Reliability department.
- Supported Reliability sub-departments in modeling and printing high-temperature withstanding test items.
- Designed multi-layer high pin-out breakout boards in Altium supporting ESD qualification testing.
- Operated advanced Burn-In systems achieving a 15% decrease in handling failures during qualification.
  - ELES smART, ELES TTS1, ELES MTx, MCC-LC2, and AEHR Max2/Max3 ovens.
- Created a Python script converting AEHR Burn-In programs to MCC-LC2 Burn-In programs.
- Researched, submitted, and presented 30+ Burn-In Specification reports to engineers and customers.
- Released 10+ Product and Package Qualification reports for DCS, CBU, MPD, MCU08 and MCU16 business units.

Software Engineering Intern May 2021 – May 2023

IBM Corporation *Tucson, AZ*

- Assisted in development and debug of a diagnostic server-health evaluation bash script pushed to over 1000 clients.
- Deployed code to over 4,000 XIV/A9000/R flash storage systems identifying potential failing BBU power supplies.
  - Negated over 10,000 potential replacements for over 600 companies.
- Contributed as a software engineer in an Agile environment, improving existing software and unit testing.
- Diagnosed technical issues and supported clients in resolving issues related to XIV/A9000/R storage servers.

PROJECTS

Let's Boil a Computer, Again! - Hardware and Software Team Lead Aug. 2022 – May 2023

Senior Design Capstone @ The University of Arizona for Microsoft Corporation *Tucson, AZ*

- Prototyped and constructed a Two-Phase Immersion Cooling server for Microsoft using liquid coolant.
- Designed and coded a Graphical User Interface using Tkinter in Python for system and sensor control.
- Implemented and integrated a multi-threaded dynamically updating dual-axis graph using Matplotlib.
- Directed total system design, system wiring, and system construction following functional block diagrams.
- Received Best Design, Project, and Presentation popular vote during Craig M. Berge Senior Capstone Design Day.

CatDash - Campus Food Delivery Service Interface Spring 2023

- Architected a Java-based desktop application, CatDash, a food delivery platform using OOP principles.
- Developed a dynamic menu system, with real-time updates to items and prices, ensuring accuracy for users.
- Delivered core functionalities such as order management, payment processing, and delivery tracking.

Sun Tran Tracker - Tucson Streetcar Tracking Fall 2022

- Followed the systems design process to create a procedural and attainable high-level proof of concept.
- Refined a functional block diagrams and verification matrices supporting system implementation and validation.
- Authored a comprehensive report detailing system objectives, stakeholder needs, and use cases.

Custom Mechanical Keyboard Summer 2022

- Engineered a custom keyboard, assembling all components and soldering each switch focusing on accuracy.
- Optimized layout and functionality for my common uses using layers and flashing using custom QMK firmware.

TECHNICAL SKILLS

Skills: Python, C/C++, Java, JavaScript, HTML/CSS, React, R, MatLab, Git, Github, Altium, LaTeX, Microsoft Power Automate, Circuit Design, Soldering, Micro-Soldering, PCB Design