

IYAD ALHASAN

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PROFESSIONAL EXPERIENCE

➤ Golden Electronics, Amman, Jordan.

• ASIC Digital Design & Verification Engineer (Team Lead) • July 2021 - August 2023:

- Testing and debugging RTL code of 1G/10G/25G/40G/100G Ethernet's (802.3) PCS sublayer IP core.
- Code Coverage analysis and corner cases detection using VCS.
- Results reporting automation & flow automation using BASH, Python, TCL.
- Run and debug errors occurring in RTL signoff flows such as Lint, CDC, RDC, Synthesis and Power intent (UPF) for Ethernet's (802.3) 1G/10G MAC sublayer IP core.
- FMEDA & DFMEA automation scripts debug (TCL).

➤ Dimitri's Coffee Factory, Amman, Jordan.

• IoT Engineer • March 2021 - June 2021:

- Build various IoT sensor nodes targeting coffee roasting & brewing processes monitoring using custom designed PCB boards.
- PCB design using Altium.
- Products deployment in coffee House Branches and data collection for ML training purposes.

EDUCATION

➤ Master of Science in Computer & Systems Engineering: 2023 – 2025.

• University of Houston, Houston, Texas. GPA: 4.0.

○ Relevant Coursework & Projects:

- **VLSI Design:** Designed 2GHz Semi-Dynamic flipflop using Cadence Virtuoso (180nm technology).
- **CMOS Analog ICs:** Designed a 2 Stage OPAMP and built a Butterworth filter using Cadence Virtuoso (180nm technology).
- **Digital Signal Processing:** Designed a Filter to separate Morse code Hidden in Beethoven music using MATLAB.
- **Introduction to Cybersecurity.**
- **RTOS for IoT:** Designed a Clock and Calendar app using RTOS features developed in class.

- **Active Research Topic:** Implementing an FPGA based hardware accelerator for Fully Homomorphic Encryption. **Advisor:** Dr. Biresh Joardar.

➤ Bachelor of Science in Electrical Engineering: 2016 – 2021.

• Jordan University of Science and Technology, Irbid, Jordan. GPA: 3.82.

- **Academic Graduation Project:** Designed an LCL filter for Grid-Connected Source Converter and carried out all control & stability analysis using MATLAB & Simulink.

TECHNOLOGIES USED

- **Languages:** C, C++, TCL, Perl, Python, BASH, TCSH, System Verilog.
- **Tools:** MATLAB/Simulink, Synopsys Design Compiler, Synopsys Fusion Compiler, Synopsys Spyglass, Synopsys VC Spyglass, Synopsys VCS, Cadence Virtuoso, LT-Spice, Xilinx Vivado, Perforce.
- **Communication Protocols/Interfaces:** Ethernet Protocol (802.3), AMBA Protocol (APB, AHP, AXI), XAUI.
- **Achievements/Awards:**
 - Voted best in team & promoted to Team Lead (2022, Golden Electronics).
 - Awarded a competitive scholarship by the University of Houston.
- **Extra-Curricular Work:** IEEE JUST Member, Science shows content creator at Naqsh, Kahrabji Team academic member, Design of a Prayer Times AI chatbot website, Electronics undergraduate courses teacher.
- **Work Eligibility:** Eligible to work in the U.S.