Ahmed Mohamed Abubakr

IC LAYOUT ENGINEER

Giza, Egypt | 01113284597 | ahmed.mo.abubakr@gmail.com

Education

Sohag University | Faculty of engineering | 2023

Bachelor of Electronics and Communications Engineering

Experience

Teaching Assistant | Higher Engineering Institute | 2023 -2024

- Delivered lab sessions and tutorials for Electronics, Electromagnetic Waves, and Computer Interfacing courses.
- Assisted 50+ students with circuit design and simulations, improving average lab scores.

Trainer | Creativa Sohag | Web Development Sessions | Mar 2024

- Trained ~200 trainees across multiple sessions over two years.
- Covered: Introduction to programming, frontend/backend development, freelancing, and complete website building.

Trainings

IC Design Training | Dr. Hesham Omran – Microelectronics

Studied analog IC layout design fundamentals and conducted simulations using UMC 13μm PDK with Cadence tools.

Cisco Networking Academy

Completed: CCNA v7 (3 modules), Linux Essentials, Cybersecurity, and NDG Linux Series.

Projects

Graduation Project | Sponsored by Si-Vision | 2022 – 2023

- Designed analog layouts for an Operational Transconductance Amplifier (OTA) and a Variable Gain Amplifier (VGA) using 32nm CMOS technology.
- Used Synopsys Custom Compiler for layout implementation.
- Sponsored by Si-Vision and received an Excellent grade.

Designed and simulated an 8-bit Hamming Code circuit using Proteus to detect and correct single-bit errors

- Implemented logic gates to generate and verify parity bits.
- Displayed the erroneous bit index using a 7-segment decoder.
- Demonstrated understanding of digital logic, fault detection, and basic hardware debugging.

Implemented Huffman Encoding and Decoding algorithms in Python for text compression.

- Built dynamic Huffman trees based on symbol frequency.
- Calculated compression efficiency and restored original data through recursive decoding.
- Demonstrated strong knowledge of algorithms, recursion, and data structures.

Skills

- **Technical:** Cadence, Linux, Python, MATLAB/Simulink, Proficient in PCB design and circuit simulation using Proteus and Altium Designer

- **Teaching:** Curriculum development, student mentoring.
- **Languages:** Fluent English (written/spoken).

Volunteering

Volunteer | Technology Innovation & Entrepreneurship Center

TIEC Innovation Ambassador

Leader | SMART student activity

- best member at 2019, best leader at 2020
- hole team leader 2021
- talk about team at ITI 2020, talk about web development in ITI 2021

Personal Information

- **Date of Birth:** 03 Aug 2000
- **Nationality:** Egyptian
- **Military Status:** Completed Military Service
- **Phone:** 01113284597
- **Email:** ahmed.mo.abubakr@gmail.com
- **GitHub:** github.com/abubakr3800
- **LinkedIn:** linkedin.com/in/ahmed-abubakr-a27b7a278
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