



## SUMMARY

A versatile professional with expertise in AI, IC design, and communications/networks. Proficient in leveraging AI for network optimization, designing cutting-edge integrated circuits, and ensuring seamless connectivity across diverse platforms.

## EDUCATION

### AASTMT University

B.S.C. in Electronics and Communication Engineering 2019-2024

## SKILLS

- Cloud Computing and Networking
- Wireless Networking
- Cadence - Catapult
- Xschem and Ngspice
- LTspice - Xilinx
- Verilog A - FPGA
- PCB design
- Python - C++ - C
- Simulink - Matlab

## CERTIFICATIONS

- Cisco Certified Network Associate (CCNA) - Cisco
- RF and millimetre-wave Circuit Design at EINDHOVEN University of Technology (2022)
- Quality of Service (QoS) and Traffic Engineering
- Mobile package
- Voice over IP (VoIP)
- CompTIA Network+
- Unity essentials and junior programming
- HCIA-AI (Huawei Certified ICT Associate AI) Training
- Analog Circuits and Systems Through SPICE Simulation (NPTEL)
- Advanced CMOS Analog IC Design (MAHARA-TECH)
- Python Microsoft online summer training
- Chipion'25 IEEE ALEX SC digital ic Desgin Asic Flow
- Integrated Circuits and Microsystems for Emerging Biomedical Applications at IEEE circuits and systems society
- works on Design OTA and r-2r ladder DAC capacitive DAC Project with Dr Islam Abd Ellattif.
- Embedded System Diploma at Amit with the project of Glove\_For\_Deaf
- HUAWEI HCIA-AI & HCIA5G
- EME: Egypt makes electronic Eye Gaze Detection

## PROFESSIONAL EXPERIENCE

### AUC

Analog and RF, digital, VLSI | September: April 2024

- Two-stage Differential Input single-ended output CMOS amplifier using cadence followed by different analysis, DC, AC, STTB, transient, power calculations, and CMRR calculations.
- Design of Two 4-bit Adders: Ripple Carry Methodology: In the ripple carry approach, each bit's carry output ripples through to the next bit, introducing potential delays.

### ITI

UART-based Bootloader | August 2023 : September 2024

- A critical component within embedded systems.
- This specialized software module serves as a bridge between hardware and software, enabling the loading of applications onto the target device during the boot-up process.

### Samsung Innovation Campus

AI Engineer | July: October - 2024

- learning Applied Preprocessing, Evaluation, Feature extraction, and EDA on large datasets with business solutions
- Applied CNN, LSTM, RNN, VGG16, and Machine Learning Algorithms for predictions on different projects
- Projects => Stroke Prediction, EYE GAZE

### Virginia Tech Training

AI Engineer - Embedded System | July: September 2023

- Embedded System on Chip ( Hardware/software interfacing and communication)
- Digital Design Flow, Tools, and Implementation Technologies, CNN Problem (Algorithmic and Computational Perspective), Architectural Concept for CNN Algorithm Hardware Implementation.
- Project => Implementation of a real matrix multiplication based on the Blocked Matrix Multiplication algorithm

### Siemens

Analog to Digital Converters Design and Verification | On February 2024

- SAR ADC design and verification
- Sampling and quantization - Data converters specifications - Data converter simulation and testing

FinFET Physics and Modeling for Circuits Simulation

- I was one of the top 5 students
- fabrication and design processes from Planner MOSFET to FinFET Tech.