

Omar Al Nuaimi

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EDUCATION

American University of Ras Al Khaimah

B.S. in Computer Engineering | GPA: 3.66 / 4.00 | Dean's List

Ras Al Khaimah, UAE

Expected May 2027

- Relevant Coursework: C/C++, Data Structures & Algorithms, Digital Systems Design, Computer Architecture, Database Systems, Operating Systems, Microprocessors & Embedded Systems, Data Communications & Networking

EXPERIENCE

Ras Al Khaimah Economic Zone (RAKEZ)

Salesforce Developer Intern

Ras Al Khaimah, UAE

May 2026 – Present

- Build and maintain Salesforce data models and object schemas to support CRM operations across RAKEZ's multi-industry business ecosystem.
- Design and implement end-to-end automation flows including Lead-to-Opportunity conversion pipelines, reducing manual handoff steps and streamlining sales processes across business units.
- Completed Salesforce Trailhead CRM Basics and Admin Beginner pathways; working directly within a production Salesforce org at enterprise scale.

Ras Al Khaimah Hospital

IT Department Intern

Ras Al Khaimah, UAE

May 2024 – Aug 2024

- Administered hospital management software across clinical and administrative departments, maintaining uptime and data integrity for patient-facing systems.
- Wrote and executed SQL queries to retrieve, filter, and cross-reference patient records across departments; applied relational database concepts under direct mentor supervision.
- Conducted scheduled hardware and software audits — diagnosing system faults, replacing peripherals, and maintaining service logs across multiple hospital departments.

American University of Ras Al Khaimah

Student Assistant — Sports & Recreation

Ras Al Khaimah, UAE

May 2025 – Present

- Prepared and managed a ~AED 66,000 annual budget across Fall 2025, Spring 2026, and Summer 2026 semesters, covering resource allocation for all sports and recreational programming.
- Organized and executed four campus-wide championships — Men's Table Tennis, PlayStation FIFA, Chess, and Pool — overseeing logistics, scheduling, and engagement for hundreds of student participants across the university gym and student lounge.

American University of Ras Al Khaimah

Men's Volleyball Team Captain

Ras Al Khaimah, UAE

Sep 2024 – Present

- Led AURAK's Men's Volleyball Team to its first-ever championship trophy in program history; managed training strategy, conflict resolution, and player development in collaboration with coaching staff throughout a full competitive season.

PROJECTS

Sound-Activated Lighting System — STM32 Embedded

Hardware & Firmware Lead

AURAK

Jan 2026 – Apr 2026

- Designed and implemented a real-time clap-detection lighting system on the STM32L476VG (ARM Cortex-M4); interfaced a Gravity analog sound sensor via 12-bit ADC (ADC1_IN6/PA1) with GPIO-driven LED output on PB2.
- Configured ADC1 in Continuous Conversion Mode with asynchronous clock (CKMODE=00), 47.5-cycle sampling, and right-aligned 12-bit resolution; implemented register-level GPIO setup across AHB2ENR, MODER, OTYPER, PUPDR, and BSRR.
- Calibrated detection threshold (ADC=1000) via oscilloscope waveform analysis — distinguishing ambient noise (100–300) from clap events (2,500–3,800); achieved <10 ms response time with software debounce eliminating multi-trigger artifacts.

Linux Kernel Internals — Live System Analysis & Implementation

Systems Analyst & Author

AURAK

Jan 2026 – Apr 2026

- Conducted deep technical analysis of Debian 13.4 across five OS domains: process/thread management (task_struct, NPTL, EEVDF scheduler), synchronization primitives (futex, mutex, RCU, spinlock), memory management (Buddy System, SLUB allocator, demand paging, COW, LRU), monolithic-modular kernel architecture, and the LSM security model.
- Deployed Debian 13.4 on VirtualBox and ran live experiments using strace, htop, and stress-ng — tracing clone()/execve() system calls, verifying kernel/user mode transitions, and stress-testing CPU and memory subsystems to validate scheduler and allocator behavior.

4x4 Array Multiplier — VHDL & FPGA

AURAK

Team Leader

Oct 2025 – Dec 2025

- Designed a 4x4 array multiplier in VHDL using partial product generation and a full-adder network; validated correctness through Quartus RTL and waveform simulation, then deployed and verified on a physical DE2-115 FPGA board.

Finite State Machine — VHDL & FPGA

AURAK

Team Leader

Oct 2025 – Dec 2025

- Implemented and compared Mealy and Moore FSM architectures in VHDL, demonstrating sequential logic and state transitions for real-time hardware; deployed and debugged on FPGA hardware.

Tutoring Center Relational Database

AURAK

Team Member

Oct 2025 – Dec 2025

- Designed and implemented a fully normalized MySQL database (1NF–3NF) within a team of six; performed requirements analysis, schema design, and anomaly elimination across update, insertion, and deletion operations.

Sorting Algorithms Benchmark Suite — C++

AURAK

Team Member

Mar 2025 – Apr 2025

- Implemented and benchmarked Bubble Sort, Quicksort, Merge Sort, and variants in C++; added file I/O and high-resolution timing instrumentation to produce quantified, reproducible performance comparisons across input sizes.

CERTIFICATIONS

- **Introduction to Microprocessors** — Arm (Coursera) Mar 2026
- **Embedded Systems using C** — EDUCBA (Coursera) Mar 2026
- **Basics of Embedded Systems** — Ansys Feb 2026
- **Operating Systems** — BITS Pilani (Coursera) Apr 2026
- **Networking Basics** — Cisco Networking Academy May 2026
- **Technical Knowledge: Cybersecurity** — Accenture Mar 2026
- **Digital Knowledge: Artificial Intelligence** — Accenture Mar 2026
- **Salesforce CRM Basics & Admin Beginner** — Salesforce Trailhead 2026
- **ISC2 Candidate** — ISC2 Nov 2025

TECHNICAL SKILLS

Languages: C, C++, Embedded C, Java, VHDL, SQL, Bash

Embedded & Hardware: STM32L476 (HAL + register-level), ARM Cortex-M4, 12-bit ADC, GPIO/DMA, FPGA (Quartus, ModelSim), Keil µVision, oscilloscope analysis

Systems & OS: Linux (Debian/Ubuntu), Git/GitHub, VirtualBox, strace, htop, stress-ng

Cloud & CRM: Salesforce (data modelling, Flow Builder, Lead-to-Opportunity automation), CRM architecture

Databases: MySQL, relational schema design, normalization (1NF–3NF), SQL querying

Networking & Tools: Cisco Packet Tracer, TCP/IP, subnetting/VLSM, static routing, Wireshark, LaTeX