YOUSEF H. AKBAR

✉ yousef@yhakbar.com · ☎ +965 99991619 · ⓞ yousefakbar

👥 EXPERIENCE & RELEVANT PROJECTS

Lead Robotics Intern (C/Ch/C++ Firmware)   Oct. 2019 – June 2020

Center for Integrated Computing and STEM Education, UCDavis   Manager: Dr. Harry H. Cheng

Development of software and hardware for Linkbot sensor-based robotics.

- Programmed firmware in *C/Ch* for compatibility with Arduino and sensors.
- Co-authored chapters and fixed formatting in STEM textbook *Sensor-Based Robotics*.
- Implemented better collaboration workflow with *git* for code and documentation.

EasyMoo Cow Monitor – Electronics Senior Design Project   Sep. 2019 – March 2020

Soldering, Firmware Design (C/C++), 3D Printing   Capstone Project, collaborated with 3 colleagues

Devised, designed, and fabricated a *cow health monitor* with sensors (System on Chip)

- Designed schematic and PCB design on *Altium Designer*, then 3D printed final board.
- Fabricated and Soldered ICs and sensors on a single chip.
- Coded firmware in *PSoC Creator* in C/C++ and assembly.
- Learned and implemented I2C, BLE, UART communication protocols.
- Project hosted on GitHub: https://github.com/yousefakbar/EasyMoo.

Sound-Responsive TI Robot Project   2018

Robotics, Soldering, Firmware Design (C/C++)   EEC10 Individual Final Project

Built and programmed a sound-sensitive robotic kit that reacts and 'drives' towards a sound source.

- Assembled TI-RSLK kit with wheels and motors, and TI Launchpad
- Coded firmware in *Code Composer Studio* in C/C++
- Implemented with SPI, UART communication protocols

🎓 EDUCATION

University of California, Davis (Merit School)   2016 – 2020

Bachelor's Degree in Computer Engineering (ECE)
IEEE Davis Chapter Member

The British School of Kuwait, Salwa, Kuwait   2013 – 2016

Certificates in IGCSE and AS Level Education, *Cambridge and Edexcel*
Member of clubs: Robotics, Chess, Hiking, Soccer Team

⚙ SKILLS

- **Hardware**: Soldering, Oscilloscopes, Signal Generators, Multimeters
- **Programming**: C/C++, Python, Shell scripting, Vimscript, Lisp
- **Platforms**: GNU/Linux, Mac, Windows, Raspberry Pi, Arduino, Vim, Emacs
- Bilingual, Interpersonal Communication, Teamwork, Leadership

♡ HONORS AND AWARDS

Kuwait State-Funded Full-Ride Scholarship   Aug. 2016

Prestigious scholarship awarded to Top 100 students annually

Duke of Edinburgh International Award Bronze   2014

Award for series of self-improvement exercises including hiking, leadership, skill learning