Omar Mohsin

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Authorized to work in the U.S.
Portland, OR
(206) 398 9773

A dynamic professional with a Master's degree in Electrical and Computer Engineering. Good analytical abilities and clear understanding of both Software and Hardware Development Process. A fast learner with excellent problem solving skills. I have the ability to work accurately and pay attention to details.

Experience

- **H.W Verification Engineer,** Microsoft, Redmond, WA — Jun. 2014 – Sept. 2014
  - Designed circuits simulating different functionalities for testing purposes.
  - Conducted design verification of consumer electronics devices (hardware, firmware and software).
  - Executed test procedures and debug proof of concepts or early engineering units.
  - Ensure the execution of testing and test plans are completed with the highest level of quality.
  - Provided critical analysis and test result summaries and performance metrics.
  - Documented performance data and use statistical data analysis techniques to summarize results.
  - Participated in test strategy discussions, developing test methodologies, plans & test cases to ensure system performance metrics meet product specifications.
  - Developed, documented, and executed test cases based on the product specification in coordination with the team.
  - Created, documented and monitored progress of product issues.
  - Developed test automation scripts, execute and document results.
- **Student,** Computer Architecture I and II, Portland State University, Portland, OR — Sept. 2012 - Apr. 2013
  - Experienced with Serial/Parallel Buses (USB1, 2, 3, PCI Express, AGP, I^2C), Caches, Memory, Virtual Memory, Pipelining, Disks and other I/O devices.
- **Technical Research Assistant (Internship),** Rinehart Motion Systems, Wilsonville, OR. — Jul. 2012 - Sept. 2012
  - Coded for a traction controller for electric vehicles to meet specific customer needs.
  - Adapted existing software to a different traction controller (both have the same DSP).
  - Studied the hardware and the software of different devices to achieve the modifications.
- **Student,** Electric Vehicles I and II, Portland State University, Portland, OR — Jan. 2012 - Jul. 2012
  - Led the "Light Tracking Robot" team. A robot followed the light and avoided obstacles.
  - Designed the robot and coded its microcontroller.
  - Experienced with PWM Buck/Boost DC- DC convertors, which are used with power systems.
- **Student,** Portland State University, Portland, OR — Sept. 2011 - Jan. 2012
  - Led the "Networked Newton Robot Puppet for Robot Theatre" team. A robot that everyone can control and monitor via internet globally.
  - Adapted existing code of the main server to our Newton's system.
- **Control and Systems Engineer,** Oil Products Distribution Company (OPDC), Al-Anbar, Iraq. — Dec. 2008 – Jul. 2011
  - Worked in maintenance unit on meters programming as well as breakage analysis and troubleshooting.
  - Increased efficiency of equipment resulting in a 20% gain in the monthly profit.
- **IT Administrator,** Al-Anbar Satellite channel, Al-Anbar, Iraq. — Jan. 2007 – Nov. 2008
  - Setup and installed audio systems in the control room.
  - Maintained the software and the hardware of the computer systems.
- **Hardware Engineer,** Al-Ayn Company for Computer Services, Baghdad, Iraq. — Jan. 2004 – Aug. 2006
  - Configured computer networks for the company's clients.
  - Achieved testing and troubleshooting using oscilloscope and other lab-equipment.

Education

- **M. S. Electrical and Computer Engineering,** Portland State University, GPA 3.81, Portland, OR. — Sept. 2011- Dec. 2013
  - **Related Course Work:** Intelligent Robotics I & II, Electric Vehicles I & II, Advance Embedded Robotics, Digital Integrated Circuits Design, Microprocessor System Design, and Computer Architecture.

- **Master's Thesis:** Mobile Robot Localization based on Kalman Filter. The platform used was a humanoid guide robot called MCECS-Bot. Jun. 2012 - Dec. 2013
  - Simulated sensor fusion technique and Kalman Filter using Matlab.
  - Designed and built the MCECS-Bot robot.
  - Designed and made most of the circuit boards using KiCad (For instance; Power Management Circuit and Power Distribution Board). The design process was involving Board Level Troubleshooting.
  - Tested and debugged the main boards using oscilloscope and DVMs.
  - Programmed the navigation system using C++.
  - Coded microcontrollers connecting the main PC with sensors/motors using C/C++.

- **B. S. Mechatronics Engineering,** University of Technology, Ranked 4th, Baghdad, Iraq. Oct. 2003 - Jul. 2007

Skills

- Computer Programming Languages: C, C++, Python, Matlab.
- Hardware Description Languages: Verilog, VHDL.
- System Design Platform: LabView.
- Circuit CAD tools: LTSpice, ModelSim, Cadence, KiCad, EAGLE.
- Operating Systems: Windows 7, Linux/Unix.
- Laboratory Measuring Equipment: Thermal sensors, DVMs, Oscilloscopes, Logic Analyzer.

Awards

- **Fulbright Scholarship,** MSc, Electrical and Computer Engineering, PSU, Portland, OR. Aug. 2011 - Dec. 2013
- **Letter of Thanks and Appreciation** from Iraqi Minister of Oil for my efforts in 2010, 2011. Jul. 2012
- **Employee of the year,** Oil Products Distribution Company, Al-Anbar, Iraq. 2010 and 2011

References

Will Blakemore
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