Jasem Ali

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EDUCATION

BACHELOR OF ELECTRICAL ENGINEERING - June 2020 - December 2023

University of The Pacific, Stockton CA

➤ GPA 3.82 ➤ Dean's Honors (2020- Present)

➤ Member of Tau Beta Pi Engineering Honor Society

➤ Member of Mortar Board Honor Society

RELATED COURSES

➤ Microcontrollers

➤ VLSI Design

➤ Electronics

➤ Circuits

➤ Computer Systems & Networks

➤ Digital Design

➤ Data Structures

➤ Mobile Robotics

EXPERIENCE

Electrical Manufacturing Engineer Intern - May 2023 - Current

Cepheid - Sunnyvale, California, United States

- Review Altium design files for the PCBA design.
- Support to creating/revising Bill of Material (BOM) and preparing Design Change Order (DCO) to submit in Agile.
- Design and set up of experiments, as well as data collection, and report/justification writing.
- Support prototype, testing, pilot production builds, and process validation.
- Work closely with the Engineering team in the exploration of products and/or process problems, definition and selection of new concepts and approaches, and modification of material, component, and process specifications and requirements.

ENGINEERING TUTOR – January 2023 – May 2023

University of The Pacific - Stockton, California, United States

- Efficiently educated and prepared students with many courses including C++, Data Structures, Computer Systems & Networks, and Python.
- Encouraged and promoted the success of students by teaching them how to tackle hard projects and assignments.
- Discovered and gained new skills and tools, such as argparse in Python.

PROJECTS

BUILDING AN MP3 PLAYER – August 2022 – December 2022

- Using the manual sheet for the Tiva™ TM4C1294NCPDT Microcontroller and my knowledge in C and ARM Assembly, I programmed the main parts of the MP3 player.
- Learned about different communication protocols (UART, I2C, and SPI) and implemented SPI to integrate the microSD with the microcontroller.

MIPS TO MACHINE LANGUAGE USING PYTHON - August 2022 - December 2022

- Learned how to use Python on Linux operating system (using a virtual machine) to implement the conversion between MIPS Assembly and Binary Machine Language.
- Planned out my program using flow charts to determine all possible cases easily.
- Tested my code and debugged my code in an organized and methodical fashion.

SKILLS

C++, Python, HTML, MIPS, ARM, CSS, PHP, Circuits, C, MATLAB, Java, Latex Overleaf, Digital Multimeter, Oscilloscope, Waveform Generator, Electronics, Arabic & English, Arduino.

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ADDITIONAL EXPERIENCES

WEB DESIGNER - May 2022 - August 2022

The Rose Art Gallery - Kuwait

- Utilized Adobe and Canva to create templates to view the website and determine any
 possible changes the artist may request.
- Established the basic structure of the website using HTML and then fabricated the designs and styles using CSS and PHP to develop a dynamic website.
- Constructed the communication functionalities and features (E.g. Contact Us page) using Java.

C++ PROGRAMMING TUTOR – September 2018 – June 2019

Al Bayan Bilingual School - Kuwait

- Efficiently communicated with and assisted students with developing their programs and fixing their bugs and errors.
- Helped students understand programming topics by explaining them in a way they would comprehend.

ADDITIONAL PROJECTS

DEVELOPING A PORTFOLIO WEBSITE (Jasemali.net) - December 2022

- Composed the basic look of the website using HTML, and then styled it using CSS.
- Independently learned how to upload and host the files to the internet (Github pages and Google Domains).

HANGMAN GAME ON LINUX OS USING PYTHON

- Used Python and parsing techniques to complete the project.
- Tested the project and verified that the project will handle all possible inputs.

TIC TAC TOE GAME USING C++

- Implemented a feature where the user can play with another user.
- Created a second option, where the user can play against the computer with different levels of difficulty.

MACHINE LANGUAGE TO MIPS ASSEMBLY USING PYTHON

• Using Linux as the operating system, designed and constructed a Python program that converts binary machine language to ARM assembly language.

BANKING SYSTEM USING C++

- Developed a program that allows the user to both create and save accounts (including the information stored in those accounts) using knowledge in both C++ and data structures.
- Implemented global and private classes to keep private information (names, social security numbers, and account numbers) hidden and safe.