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Mustafa Alshehab

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Summery

As a seasoned software engineer with over five years of experience, I possess expertise in various software development areas like DevOps, web and desktop applications, and embedded systems. My passion for technology drives me to excel in every project. With a proven track record of success, I can work seamlessly with teams or independently. My dynamic leadership style enables me to take charge of projects from inception to production, delivering exceptional results on time and within budget. I thrive under pressure and remain laser-focused on executing project deliverables with the utmost attention to detail.

Software Development
Containerization Architecture
Sales and Customer Support

Cyber Security
System Administration
Technical Leadership

Employment

Software Engineer

Intel

Dec 2021 - Present

- DevOps: Kubernetes | Docker | Ansible | Python | Jinja | Linux | AWS
 - Maintain and support Intel open-source Container Experience Kit project by proactively identifying and addressing complex issues.
 - Improved Container Experience Kit code base by suggesting code best practices and documenting it.
 - Support and maintain Workload Service Framework project by adding, optimizing, and benchmarking various containerized workloads on X86 and ARM platforms.
 - Started and finalized FAQ Revamped initiative to make it easier and more efficient for everyone to find information for the Workload Service Framework project.
 - Lead 5G workloads integration, enablement, testing, and optimization on Intel infrastructure
 - Leveraged Knowledge in Kubernetes, Docker, Python, Bash scripting, Linux, Windows 10, Ansible, Jinja, Git, ssh, Microsoft VS Code

Software Engineer

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Jun 2018 - Present

- Embedded/Firmware/ Back-end development: C/C++ | Qt | ARM | Bluetooth Low Energy (BLE) | UART | I2C
 - Developed a feature for Strata Developer Studio to communicate to a client wirelessly within a local network
 - Maintain and support the development of Strata Developer Studio.
 - Developed firmware for bare-metal MCUs to communicate serially with Strata Developer Studio.
 - Developed a firmware with both BLE GAP peripheral/central roles and GATT server/client roles to search, connect, and exchange data with other BLE devices.
 - Leveraged knowledge in C/C++, Qt/QML, CMake, Git, TCP/IP, ARM Coretex-M3 architecture, Memory Pool, debugged using Oscilloscope, Digital Multimeter, and JTAG/SWD debugging interface.
- DevOps: Docker | Jenkins | Python | Linux | Windows | SDK | Qt installer
 - Reduced dependencies conflict by 50% by eliminating multiple OS build support by utilizing Docker.
 - Created and maintained Linux Ubuntu Docker image with the tools/dependencies to build firmware.
 - Automated the build process by using Bash scripts, CMake, and a modified VS Code interface.
 - Reduced start of Strata development time by 90% by making an SDK installer with concise documentation

- Reduced building time of Strata Developer Studio by 70% after the initial build.
- Architect and developed automation process for Strata deployment utilizing Jenkins pipeline.
- Automated Strata Developer Studio release testing utilizing Python and PowerShell scripts.
- Leveraged knowledge in Docker, Jenkins, CMake, Windows WSL, JavaScript, Bash scripting, PowerShell, Linux, MacOS, Windows 7, Windows 10, Qt installer, Inno Installer, Microsoft VS Code
- GUI and Front-end Development: Qt/QML | React | Redux | MongoDB
 - Developed QML interface for MQTT protocol along with a GUI for quick evaluation.
 - Developed a reusable React component to show analytics data in a graph.
 - Leveraged Knowledge in Qt/QML, JavaScript, C++, NPM, React, Redux, MongoDB, HTML, CSS

Teaching Assistance	Oregon State University	Sep 2016 – Mar 2017
<ul style="list-style-type: none"> - Hold weekly student help sessions and plan out homework with other TAs for the computer science II course - Assist the professor in proof reading assignments and suggests modifications. 		

Senior Operation Coordinator	Alawwal Bank	Sep 2010 – Sep 2012
<ul style="list-style-type: none"> - Trade Service Unit: issuance and amendment of Letter of Guarantee (L/G) and Letter of Credit (L/C) - Organized and kept a track of the filing system. - Established a friendly and collaborative teamwork environment. - Established a superior customers satisfaction in less than 6 months of taking charge. 		

Education

Tempe, AZ	Arizona State University	Mar 2022 - Present
<ul style="list-style-type: none"> • Master: Computer Science (Cyber Security emphasis) 		
Corvallis, OR	Oregon State University	Apr 2013 – Sep 2017
<ul style="list-style-type: none"> • Bachelor of Science: Electrical and Computer Engineering – GPA: 3.36 out of 4 		
Dammam, Saudi Arabia	Institute of Public Administration	Feb 2008 – Sep 2010
<ul style="list-style-type: none"> • Associate in accounting – GPA: 4.35 out of 5 		

Personal Projects

- **Optical Heartrate Monitor**
 - Developed an Android application to represent and record heartbeats received via Bluetooth.
 - Utilized I2C and UART communications protocols, Arduino Uno board, HC-04 Bluetooth module, Maxim Integrated heart-rate sensor, Git, Arduino IDE
 - Leveraged knowledge in, Git, BLE, Mobile development, Digital Multimeter, I2C, and PlatformIO
- **Personal Portfolio**
 - Mustafaalshehab.github.io
 - Leveraged Knowledge in JavaScript, YAML, HTML, CSS, git, static site generators.

Skills

Programming Languages: C/C++, QML, Python, JavaScript, HTML, CSS, and Shell scripting (Bash)

Tools: ARM toolchain, JTAG, RTOS, CMake, Git, Docker, React, React Native, Redux, and NoSQL (MongoB)