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Mustafa Alshehab

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Summary

A seasoned software engineer with over of five years of professional industry experience. I've 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	DevOps
Containerization Architecture	System Administration
Workload Engineering	Embedded Systems

Employment

Software Engineer **Intel** **Dec 2021 - Present**

- Workload Engineering/DevOps: Kubernetes | Docker | Ansible | Python | Bash | | Jinja | Linux | AWS
  - Extended Detection and Response (XDR) workloads integration, enablement, testing, and optimization on Intel infrastructure.
  - Support and maintain Workload Service Framework project by adding, optimizing, and benchmarking various containerized workloads on X86 and ARM platforms.
  - Maintain and support Intel Container Experience Kit project by proactively identifying and addressing complex issues.
  - led the microservices hackathon initiative within our team from its beginning and successfully delivered it to completion on time.
  - Started and finalized FAQ Revamped initiative to make it easier and more efficient for everyone to find information for the Workload Service Framework project.
  - Leveraged Knowledge in Kubernetes, Docker, Python, Bash scripting, Linux, SAR (System Activity Report), EMON, Windows 10, Ansible, Jinja, Git, ssh, XDR, Microsoft VS Code

Software Engineer **onsemi** **Jun 2018 - Present**

- Embedded/Firmware/ Back-end: C/C++ | Qt | ARM | Bluetooth Low Energy (BLE) | UART | I2C
  - Developed a feature for Strata Developer Studio to communicate with a client wirelessly within the local network, an addition to existing wired USB connection.
  - 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 React components to show analytics data in various types of graphs.
  - Leveraged Knowledge in Qt/QML, JavaScript, C++, NPM, React, Redux, MongoDB, HTML, CSS

Teaching Assistance **Oregon State University** **Sep 2016 – Mar 2017**

- 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.

Education

Tempe, AZ **Arizona State University** **Mar 2022 - Present**

- Master: Computer Science

Corvallis, OR **Oregon State University** **Apr 2013 – Sep 2017**

- Bachelor of Science: Electrical and Computer Engineering – GPA: 3.36 out of 4

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)