



Sirine KRIAA

Software Engineer

Employment History

Embedded Software Engineer

SOFIA ENGINEERING

05/2019 – 10/2020

Ariana, Tunisia

Project: *Phyt'Eau is an Internet of Things (IoT) solution that allows farmers to manage their irrigation in near real time from the analysis of external parameters and the type of crop.*

Major responsibilities:

- Study, design and implement ZigBee protocol framework.
- Design and develop log module to record measured data, modules configuration and events.
- Collaborate with software and hardware engineers in order to maintain the solution stability through device/gateway monitoring, lost data recovery and measured data analysis.
- Enhance existing code to boost firmware upgrade issues.
- Implement a local HTTP server to test firmware upgrade performance and endurance.

Project: *Sofios is the kernel code of all Sofia microcontroller solutions. In fact, it involves the whole drivers, services and features to suite Sofia products requirements.*

Major responsibilities:

- Design and develop a boot-loader.
- Design and develop a firmware over the air mechanism for both node and gateway.
- Design and develop a generic tiny file system module for small embedded systems.
- Design and implement a generic nonvolatile memory service to fit SPI Flash File System (SPIFFS), Tiny File System (TFS) and EEPROM File.

Embedded Software Engineer

SACEM SMART

07/2016 – 04/2019

Ariana, Tunisia

Project: *EMS is an energy monitoring system solution able to track electrical parameters, inform electrical and non-electrical alarms, execute remote command and optimize energy consumption. It is mainly used for distribution transformer monitoring and industrial energy efficiency.*

Major responsibilities:

Details

Email: sirine.kri@gmail.com

Mobile phone: +216 20 122 830

LinkedIn:

<https://www.linkedin.com/in/sirine-kriaa-276809121/>

GitHub: <https://github.com/SirineKRIA>

Website:

<https://github.com/SirineKRIA/Website>

Address: Ben Arous, Tunisia

Skills

Languages: HTML, CSS, JavaScript, Python & C

Web Technologies: React.js, Material-UI, Bootstrap, Node.js, Express, Web socket & UML

Data Modeling: JSON

Data Management: MongoDB, Mongoose & MySQL

Protocols: HTTP, MQTT, MODBUS, ZigBee, SPI, UART, I2C, TCP/IP & UDP

Agile Framework: SCRUM

Tools: Postman, MongoDB Atlas, SVN, GIT, Jira, Bitbucket, GitLab, GitHub, QT designer, VS code, Pycharm, Phabricator, Bugzilla, NGROK, KEIL & IAR

- Develop a human machine interface using UGUI library.
- Design, implement and test a MODBUS server based on free Modbus library.
- Design and develop MQTT client using LWIP contribute library.
- Develop a digital input module to count pulses according to IEC 62053 standard and monitor switch input status.
- Configure ADE7878a to implement sag and swell detection mechanism.
- Design, implement and test a software and hardware integration test platform.

Graduation Project

SACEM SMART

01/2016– 06/2016

Ariana, Tunisia

Project: Study, design and implementation of transformer monitoring system according to IEC 61850 standard.

Major responsibilities:

- Study IEC 61850 which is an international standard for substation automation system.
- Design and implement a distribution transformer monitoring system according to IEC 61850 standard

Education

Telecommunication Engineer

SUPCOM

09/2012 – 06/2016

Ariana, Tunisia

Bachelor's Degree in Technology

IPEIS

09/2010 – 06/2012

Sfax, Tunisia

Trainings

Agile – Scrum

Energy Efficiency

Internal Audit

Languages

Arabic 

English 

French 

Spanish 

Interests

Swimming, reading & movies