

BOUSSELMI

BESSEM



Tunisia



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Github.com/Bsm-B



Bessembousselmi

Developer & Designer Consumer Electronic Products (4 Products in market) - Embedded Systems Developer - Software Developer

WHO AM I?

I am Bousselmi Bessem, a developer from Tunisia with a deep passion for technology, especially in the realm of creating intelligent and innovative consumer products. My journey as a coder started at the age of 13, when I discovered ActionScript and built my first video game. That initial experience was unforgettable and motivated me to pursue a career in technology with the aim of making a significant impact in the field.

EXPERIENCE

Jan 2024 - Present
Hybrid, Tunisia

Embedded Integration Team Leader

BMW Group / Capgemini

Lead and manage the Linux and Android Integration Team, ensuring efficient processes and high-quality outcomes.

Provide leadership and support for the Yocto Project Team, guiding the development and implementation strategies.

Oversee backlog refinement and manage tasks

Conduct Configuration Control Board (CCB) meetings and provide robust support to Project Management team

Leadership and Team Management / Infotainment / Embedded Linux / Yocto / Python / CI/CD / Android

Nov 2022 - Dec 2023
· 1.1 yrs
Hybrid, France

Senior AI Embedded Engineer

Tuito

Create custom Linux image with Yocto project for AI application to deploy in smart product

Search for technical solutions (Targets Hardware, Software)

Integrate and optimize AI models on hardware targets for the online / offline and real-time exploitation of multi-sensor data, neural network models, IoT communication stacks. NXP i.MX8 /

Allwinner H3 / Yocto / Embedded Linux / Tensorflow lite / Python / ONNX / C++ / C / Offline Voice Recognition / Docker

Aug 2021 - Jun 2022
· 10 mo
Remote, Canada

Senior Embedded Software Engineer

GÉOTHENTIC INC

Develop & design specific Bootloader for NXP i.MX RT Processor

Design centralization pipeline for embedded cross compilation (ARM) based on Devops

Create & development new generation of product

Research, development and manufacture of internal tools (Software / Hardware)

Analyze and find solution for bugs in products

Embedded System for Automotive - ISO26262 / AutoSar / NXP-FreeScale / Rtos MQX OS / IoT / Python / Postgresql / 3G/4G/GPS/WIFI/BLE / Electronics & Signal processing / CAN Bus / Jenkins

Jul 2020 - Aug 2021
· 2.4 yrs
Tunisia, Morocco

Product Leader

GENICAL

I oversaw the design of a new IoT product intended for the general public.

I effectively supervised and coordinated activities between different teams such as mechanics, electronics, and programming, while ensuring that hardware design, plastic injection design, and firmware were properly tested and validated.

I played a crucial role in selecting suitable factories and manufacturing partners for the company.

C Embedded / Zephir OS / C# / Altium / SolidWorks / Python / Mqtt TCP/IP / WIFI/BLE / Security in IoT / Management / Scrum

May 2019 - Aug 2020
Ariana, Tunisia

R&D Team Leader

LOLIPOP » GENICAL

Headed a six-member developers team at a startup specializing in IoT, Machine Learning, and research in collaboration with Cifode'com Labs.

Tasks include Select technologies, Select hardware parts, Prototyping IoT and Embedded Product, Leading the team and solving problems

C / C++ / Mqtt / Hardware Design / 3D Printer / LPKF Prototyping / Micro-Controller / Product design / Project Management / Team Management

Jun 2017 - Aug 2018
· 1.2 yrs
Tunis, Tunisia

Junior Embedded Software Engineer

LOGAWIN

Developing systems and applications for "CKSSQUARE" company specialized in automated exchange systems.

C / C++ / Linux

EDUCATION

2017

Computer Engineering

PRIVATE HIGHER SCHOOL OF ENGINEERING AND TECHNOLOGY

Mobile Embedded Systems And Software

ACHIEVEMENT & PROJECTS

Qoobinoo AI(Qoobinoo.io) : is a fully integrated platform designed to teach children programming and embedded AI/ML . It consists of both hardware and software components, including an Atmel 32u4 microcontroller development board and an online visual IDE (Integrated Development Environment) similar to Blockly.

AVR / Bootloader / C/C++ / Kicad / Electron js / Tensorflow lite / micro

Fakrouna V1 : Leading a project in partnership with the University of SFAX for Sciences to create satellite monitoring devices for sea turtles in the Mediterranean and analyze their data to understand their behaviors

Management / Research / LORA/GSM/Satellite/GPS / Data Mining / IoT / STM32 Cortex-M0

Elissa Borad: Design and concept custom Linux computer single board like raspberry pi based on Allwinner A13 soc (1Ghz / 512 Mo RAM / 8GB eMMC)

Kicad / RAM/eMMC / PMIC / RF / USB/Ethernet/HDMI / U-BOOT

Youpi Operating System: Create a custom Linux RTOS image for scratch with specifically QT GUI for smart aquarium content artificial intelligence features

Linux from Scratch / Docker / TensorFlow Lite / QT / MQTT / POSIX / SysCall

Redox OS: Contributing in Redox OS project to build the next generation Unix-like OS with microkernel

Rust / microkernel / Unix / ARM / POSIX API / SHELL

Hand Talk: Gloves analyzing with AI model the sensory data of hand and finger motion and transfer it to a voice or App Raspberry / Python / TensorFlow & Scikit learn / Flutter / Machine learning

BigYum: Create with Flutter A social network for brand food recipes like Instagram app

Flutter (Frontend) / Laravel (Backend) / Docker / Firebase / CI/CD

Sadi9i.org: The first site in Tunisia that connects people to adopt pets for free - (Wordpress)

VOLUNTEER EXPERIENCE

2021 - Present

Lecturer / Trainer

IEEE Tunisia section

Presenting lectures in the field of the Internet of Things

Presenting Workshops

Judging at IEEE Hackathon

2021 - Present

Co-Founder

Tunisian Maker Community

Group dedicated to share information and open source DIY projects

2018 - 2020

President/Vice-President

CyberSec Club

Club specialized in information security that offers training workshops in ethical hacking and participate to international / national Hackathons

2018

Co-Founder

MustiRobots

Club to teach children the basics of robotics and programming for free.

LANGUAGES

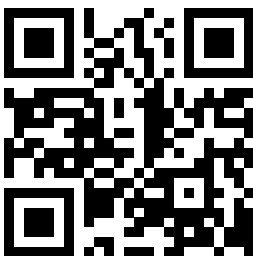
Arabic - Native

English - Professional

French - Professional

Italian - Beginner

ONLINE PROFILE



TECHNICAL SKILLS

Desktop: C#, VB.NET, QT C++, Python, RUST, GTK+, JAVA (I hate so much)

Embedded System & Linux Embedded & IoT: C, C++, BASH, Python, POSIX API, RTOS, Linux From Scratch, Yocto, Buildroot, OpenWrt

MCU/CPU: STM32, NXP Kinetis, NXP i.MX, ESP32, AVR, PIC, Raspberry, Allwinner

Web: PHP, Symfony, Laravel, Nodejs, Django, HTML/CSS/JS, Wordpress

Database: MongoDB, MySQL, MSSQL, Postgresql, SQLite

AI&ML: Tensorflow (JS/LITE/MICRO), Keras, Scikit-learn, Pandas, Numpy

Mobile: Flutter, Dart

Cloud: Kubernetes, Docker, Jenkins, OpenKVM, Azure DevOps Server, VMware, Ansible, Nexus, Prometheus

Electronics: Altium, Kicad, Amplifier, Sift register, Decoder, PMIC, Multiplexer, Flash, EEPROM

Mechanical: Solidworks (Metalsheet & Drawing & Molding injection), 3D printing

Protocols: SSH, FTP, SOAP, HTTP, WebRTC, REST, MQTT, RabbitMQ, CAN, UART, I2S, I2C, SPI

Tools & Other: Git, Confluence, Jira, Photoshop, Illustrator, ClickUp, Enterprise Modeling