**Rasem Fadela**

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**PROFILE**

Software team leader and HW engineer with vast experience in multidisciplinary development of robotics for the medical industry. More than 20 years in development of embedded software, low level drivers and UX/UI in multi operating systems. Developed hardware electronics boards and was part a team which developed hardware and software projects. Excellent system architecture skills set and vast experience in all project phases from requirements to market launch, excellent human skills set and a team player.

**EDUCATION**

**1994-1998 Ben-Gurion University**

**B.Sc** Electrical, Electronic and Computer Engineering

**EXPERIENCE**

**2006-today Senior Firmware Engineer ReWalk Robotics (www.rewalk.com)**

Lead the software design, HW design, integration and manufacturing of ReWalk's exoskeletons and medical device.

* + - Vast experience of hands-on experience of **C programming** and firmware design of real time embedded systems SW-HW.
    - Experience with **C\C++ programming** for **embedded** systems and applications developing.
    - Extensive hands-on experience in BSP and Bring-ups of electronic boards from scratch.
    - Developed UI/UX for windows platforms
    - Experience with multi-disciplinary systems design from the stage of architecture definition, specifications, software requirements till software implementation, debugging and final integration.
    - Extensive experience on developing software drivers for communication, hardware devices and multi different processor peripheral devices.
    - Extensive experience in writing code and configuration of memory devices like **FLASH, SDRAM** and communication devices like **UART, SPI, I2C, USB, CAN, I2S, Ethernet, SMBus** for smart batteries and many other like **ADC, DMA, PLL, Interrupts and Clocks.**
    - Experience in code development for various processors and architectures like **ARM, Texas Instruments, Analog Devices** and others**.**
    - Hands-on experience on programming and interfacing to various sensors like **IMU, Gyro,** and modules like **Bluetooth module** etc.
    - Experience in electronic circuit and board design, digital and analog.
    - Experience in batteries power system design, protection and management circuits, and SMART batteries HW-SW management.
    - Hand-on experience working with lab instruments like SCOPE, Fluke, Spectrum analyzer, LOGIC analyzer and other measurements and testing tools.
    - Experience in Control theory and SERVO control programming
    - Experience in FPGA design and VHDL programming language.

**2004–2005 Firmware RT & Embedded Software Engineer Polly**

Developing navigation system armed with voice recognition algorithms independent of the speaker identity.

Designing and implementation of DSP algorithms for voice recognition on TI DSP processors.

Firmware expert engineer.

**1999–2003 Firmware RT & Embedded Software Engineer Cardiosonix**

Played essential part in designing and developing company medical devices including non-invasive ultrasound systems for measuring blood flow.

Implementing digital signal processing software and algorithms on DSP processors from TI floating point.

Writing software drivers and BSP developing for company medical devices.

**SKILLS**

* **20 years as firmware RT / Embedded software-hardware engineer**
* Extensive experience in **C** and C++ Low Level programming language
* Extensive experience in BSP and boards bring-up programming and developing of software infrastructure
* Extensive experience in multi-disciplinary systems design, programming, integration and testing including in medical devices developing.
* Experience of 6 years in Linux OS Kernel
* Python , MATLAB
* JAVA and Android
* Extensive experience in Li-ion battery and smart battery management systems HW-SW
* Experience in developing **Bluetooth** application, **GATT** profile, low level embedded and high level Bluetooth 4.1 Android developing.

**IDE – Integrated Development Environment**

Eclipse, Visual Studio, Code Composer, Android Studio, VDSP ++,

**OS**

Linux, Windows, Android, RTOS

**LANGUAGES**

**Arabic:** Mother tongue level **Hebrew:** Excellent **English:** Excellent