**MAHMOUD A. SWEDAN**

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| HIGHLIGHTS OF QUALIFICATIONS | | |
| *Strategic embedded development professional with more than eight years’ experience developing and leading embedded software teams in multinational companies to generate revenue, increase market share, and exceed quotas for organizations within the* **Automotive, Payment and Communication** *sectors. Possess in-depth knowledge of lead generation and qualification techniques* | | |
| KEY COMPETENCE | | |
| * Created Automotive Software for high profile clients like **BMW, VW, PSA, FORD and Renault** * Created the first Fixed Wireless Terminal in EMEA region with **Qualcomm** (CDMA 2000). * Experienced with wide variety of Micro-controllers, Compilers and Debuggers (**Vxworks, OSEK, UCOS||, OSEK and REX**), (**ARM, AVR, MIPS, Freescale S12XD, NEC V850FF3**), (**CodeSourcery, ADS 1.2, GCC, …**) * Experienced in Model-Driven Development using IBM Rational StateMate® * Experienced in Requirement engineering, Elicitation Techniques and Requirement Traceability Matrix. * Supervise Validation, integration, Unit Testing plans and static code analysis, execute them on test benches, real HW boards, IBM Rationale Test Real Time (RTRT)), Mathworks Polyspace * Experienced in Payment Industry: Bank messaging specs(**ISO-8583**), Global Card Schemes (**VISA, MasterCard**), PCI compliance, card security and Transaction security/EMV, Chip&Pin technologies **(EMV L2)** & Contactless, **ADVT/ M-TIP** - Type Approval testing * Good practitioner of **CMMI** Model and creating documentation for different process areas | | |
| EXPERIENCE | | |
| **BITEL EMEA (Payment INDUSTRY)**  Cairo, Egypt  *Strategic Projects Technical Lead* Aug 13 – Present   * Successfully re-designed and developed a more robust and highly maintainable Payment software. * Successfully completed all software design, development and integration assignments "on time". * Interfaced with customers to resolve problems in the field. * Involved in the Pre-sales engagement of the solution. Include producing demo, Proof of Concept (PoC) and supporting Request for Proposals (RFPs). * Conducted Estimations of the development components required for the entire solution. * Provide technical review of the solution for Solution Review Panels (SRPs) * Responsible for the technical governance for projects * Conducting code reviews for the development team | | |
| **Smart Cards Applications Company** Cairo, Egypt  *Embedded Software Team Leader* April 11 - Aug 13  Contribute to E-Gov Apps that automate the management and disbursement of subsidized food items through a network equipped with an EFT POS, allowing customers with application on their smart cards to receive government-subsidized food items in a convenient and efficient manner   * Personalize Smart Cards and create Different Applications on it * Communicate with hardware security module (HSM) that safeguards and manages digital keys for strong authentication * Communicate with Secure Access Module to enhance the security in devices to perform secure transactions and make secure authentication against smart cards. * Develop and supervise the development of EFT POS Software Applications on ARM Processor and Communicate with Backend through Bank messaging specs(ISO-8583) . | | |
| **VALEO** Cairo, Egypt  *Principal Embedded Software Engineer* May 08 - Feb 10   * Involved in complete project life cycle having completed 4 Automotive projects for **VW, PSA, FORD and BMW** successfully * Implemented many software modules between driver, and application layers for Freescale S12XD , NEC V850FF3. * Developed low level device drivers for Valeo Switches and Control * Developed code using Model based software tool IBM Rational StateMate * Authored multiple development artifacts: requirements, detailed design, code, unit and target test cases * Wrote test cases and performed unit and system testing | | |
| **QuickTel** Cairo, Egypt  *Senior Embedded Software Engineer* April 06 - May 08  Designing and implementing Software for CDMA Phones & Terminal based on CDMA Technology from CDMA module which are based on ARM7   * + Implementation of Flash Memory Driver with Reusable Interface to ease the insertion of new types of Flash memories   + Use the Observer design pattern to let the UI (Lcd UI and serial port) be notified when there is a call processing happen (Call Incoming, lost, new call established, etc...)   + Implement software configuration techniques to ease porting of the changes to different RF Chipsets   + Implement The UIM Card auto detection to play in UIM mode or NON UIM mode & take the network parameters from the Flash instead of UIM   + implement a realistic phone battery charging state machine to be adapted with HW Platform   + Add the PIN Management functionality (PIN and PUK code LOCK, UNLOCK)   + Contribute in The SMS Protocol Stack to solve some problems arise due to the countries requirements   + Add support for Dot matrix LCD   + Adjust QCom Codecs to use them for different Sound Sources | | |
| **ZAMZAM MECHANICAL AUTOMATION** Cairo, Egypt  *Embedded Software Engineer* 2004 - 2006   * Conceptualized, designed and developed a motor-speed controller interfaced by a customized GUI programmed in VC++ * Developed firmware in C and assembly for an embedded high frequency quadrature decoder using an 8-bit MCU * Implemented a motor speed PID control feedback loop on an 8-bit MCU using PWM * Engineered PC-MCU data messaging system using the SPI communication protocol * Designed electronic circuit for motor controller to interface MCU | | |
| EDUCATION | | |
| **AIN SHAMS UNIVERSITY, FACULTY OF ENGINEERING** Cairo, Egypt Bachelor of Science in Computer Engineering | | |
| SKILLS | | |
| Languages | C/C++, Java, Python, Perl, UML, HTML, XML | |
| RTOS | Vxworks, OSEK, UCOS||, REX and Linux | |
| Processors | ARM, MIPS, AVR, Freescale S12XD, NEC V850FF3. | |
| APIs\Tools | * IBM Rationale (StateMate, Rhapsody, Test Real Time (RTRT)) * CodeSourcery for ARM * ADS1.2, IAR, KEIL | * Mathworks Polyspace * Visual paradigm, ArgoUML. * Source Insight, SlickEdit, Code Worrier and eclipse |
| Networking | TCP/IP, RPC, HTTP, Soap, Jason | |
| Wireless Com | GPRS, RFID, NFC, WiFi, Bluetooth | |
| Cryptography | RSA, DES, 3DES, AES, SSL\TLS | |
| Config. Mgmt. | PVCS, CVS, GIT, SVN | |