**AHMET SEREF**

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**Address**: Sutton, London, UK

**Job Type**: Only looking for contract positions

**PROFESSIONAL PROFILE**

I have more than 15 years of hands-on experience in software development in different platforms at medium and large-scale companies. Having a good ability to perceive and interpret technical requirements, I’ve developed system and software requirements, and architectural design in different projects. I can carry out a software project from estimation and planning phase till verification and validation. Highly experienced in all phases of a software project; from estimation and planning phase till verification, delivery and maintenance. Proficiency in C, C++ and Python programming languages, model based software development, safety critical and embedded software development, real time operating systems, porting and refactoring legacy software, continuous integration and deployment and test automation.

**TECHNICAL SKILLS**

* Software development: C, C++, Python, SQL, REST API
* Agile software development, Issue tracking, risk management: JIRA
* Requirements management: DOORS
* SW configuration management: SVN, Git
* Software development IDE: Microsoft Visual Studio, Eclipse, Pycharm, Windriver Workbench, GHS MULTI
* OS: Windows, Linux
* RTOS: VxWorks, Integrity
* CI/CD: Jenkins, Teamcity
* Technical team lead, pair programming and project management
* Cross development and debugging, multithreaded software development
* Model based software development: SCADE, UML
* Virtualization, containers: Virtualbox, Docker
* Safety critical and embedded software development: DO-178B, MISRA C
* Communication standards: RS-232, RS-422, RS-485, CAN bus, TCP/IP, UDP, ARINC-429, MIL-STD-1553, I2C, SPI
* Tools: PuTTY, Wireshark

**EXPERIENCE**

* **Senior Software Engineer, SRFTech Engineering Services & Consultancy, London, UK,**

**Jul 2019-present**

* + Provide engineering services and consultancy in the following areas via own limited company:
    - Software engineering services in all phases of SW lifecycle for different platforms
    - System/Software test development (compose manual tests, test automation using scripting)
    - Porting software modules to different platforms
* **Senior Software Technical Leader, AYESAS, Turkey, Apr 2010 - Jul 2019**
  + Developed a test software that enables both manual and automated tests
    - Pair programming to develop a test software to test an embedded system’s functions and interfaces:
      * Ethernet, RS-232/422/485, DVI, DP, CVBS, ADC, discrete I/O, audio, USB, Tempsensor, RTC, PSU, ETC, WDT, MMC, NvRAM
  + Developed embedded mission computer software running on VxWorks RTOS
    - Safety Critical Software that monitors and controls other critical systems
    - Telemetry and video recording/playback software running in a separate address spaces without affecting the safety critical mission tasks
    - Developed operating system abstraction layer software using POSIX that enables to run the application software on Windows, Linux and VxWorks
    - Developed hardware abstraction layer software that enables the application specific tasks to be testable without depending on target hardware
  + Developed an automatic code generator for handling message structures
    - Code generation for handling Ethernet and CAN bus messages that are defined in the interface control documents (ICD) of the UAV sub-systems
    - C++ and Java code generation
  + Led an embedded hardware and BSP & drivers software development
    - Led BSP and drivers software development team
    - Hardware subcontractor management
    - Structural coverage analysis
    - SOI reviews for DO-178B and DO-254
  + Led a project that aims to be a gateway for ATC messages
    - Incoming ATC messages are translated into corresponding message protocol and format (AFTN, FMTP, FDE, ICAO, ADEXP, OLDI)
    - Refactored of a monolithic software into microservices architecture running on Linux OS which is running on a fault tolerant Stratus redundant system
    - Server, router and switch configuration to comply with security requirements
  + Led to a distributed mission planning software for a UAS
    - Distributed software development using microservices architecture running on Windows OS which is running on distributed hardware at different locations
  + Continuous integration and delivery (CI/CD) process using Jenkins and Teamcity
  + Managed issue tracking and risk management using JIRA
  + Performed Scrum Master role for Agile software development using JIRA Agile
  + Software configuration control using SVN and Git
  + System and software requirements development and review using DOORS
  + Make sure all the engineering and management activities comply with company processes that complies with CMMI Level 3
* **Software Team Leader, Turkish Aerospace Industries (TAI), Turkey, Dec 2002-Apr2010**
  + Developed embedded avionics software on VxWorks RTOS and Integrity RTOS
  + Technical management of the software development team
  + Porting and refactoring of a software module that has been developed in ADA with C
  + Developed modular avionics display widgets using OpenGL
  + Developed model based software using SCADE
  + System design of an embedded mission computer using COTS CPU, GPU and I/O cards; worked with GE Intelligent Platforms Ltd.
  + System and software requirements development and review using DOORS
  + Managed the software integration process, deployment of master release to the target hardware and make integration tests
  + Problem report and issue tracking with Gemini and ClearQuest
  + Software configuration control using Visual Source Safe (VSS) and ClearCase
* **Avionics Software Engineer, ELBIT Systems, Israel, Sep 2003 – Jun 2006**
  + Worked in a joint project as a team member of Elbit Software Development Team on behalf of TAI
  + Developed embedded avionics software on VxWorks RTOS
  + Developed master-backup software to manage two redundant systems that continuously updates and in case of failure takes over the system control
  + Developed hardware abstraction layer software, ARINC429, discrete and analog driver software
  + Developed several modular software modules for the central control computer that manages connected avionics systems
  + System and software requirements development and review
  + Software configuration control using Visual Source Safe (VSS)
  + Managed the software integration process, deployment of master release to the target hardware and make integration tests
* **Design Engineer, ASELSAN, Turkey, Aug 1999 – Aug 2001**
  + Developed microcontroller software
  + Developed schematic design and mentored PCB layout for power converter cards

**EDUCATION**

* **Middle East Technical University, Ankara, Turkey**
  + Master of Science (MSc) Electrical & Electronics Engineering, 2007 – 2010
    - Master thesis: Shadow detection and compensation in aerial Images with an application to building height estimation
    - Developed a software with GUI supporting the thesis in MATLAB
* **Middle East Technical University, Ankara, Turkey**
  + Bachelor of Science (MSc) Electrical & Electronics Engineering, 1996 – 2000

**PERSONAL SKILLS**

* Believes in and enjoys team work
* Quick learner
* Not discouraged and be dedicated while solving technical problems
* Enthusiastic and hardworking

**TRAININGS & CERTIFICATIONS**

* Avionics Software Engineer Training – (Jan-Mar 2003, ELBIT Systems)
* DO-178B Training – (Jan 2010, HighRely)
* BSP Training INTEGRITY RTOS – (June 2014, GreenHills Software)
* Using DOORS for Requirements Management Course – (Sep 2008, Telelogic)
* SCADE Suite Advanced – (Sep 2008, ESTEREL)
* PRIMAVERA – Project Management Module – (Apr 2008, PRM)
* Project Management – (Jul-Aug 2008, PYD)
* Innovation Culture and Leadership – (Jan 2013, Technopolis)
* IBM Rational Clearcase & ClearQuest Training – (May 2007, Bildem)