MINA NABEEH ZAKY

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Nasr City,Cairo,Egypt

EDUCATION

Ain Shams University, Cairo *June 2012-2017*
Bachelor of Computer and System Engineering.

Patriarchal college ex-freres Heliopolis, Cairo *July 2012*

CAREER SUMMARY

Experienced Embedded Software Engineer with a demonstrated history of working in the automotive industry and functional safety topics along with Software Testing integration and Quality process.

EXPERIENCE

Avelabs LLC.

- participating in research and development project as implementing CAN stack and AUTOSAR implementations over TivaC arm cortex m4.
- participating in Yonohub.com robotic simulator and setup the necessary embedded linux tools for the project (fastrtps and ROS modules) on TI Sitara board am57xx for demo purpose.

Volvo Trucks ECU Aptiv-Gothenburg (2017-2019) - TDa3x -

- Porting and optimizing Software CAN driver and interface.
- increasing quality features as Software components unit tests implementations and coverage increasing according to ASIL component.
- Solving and justify a huge number of MISRA and compiler warnings that helped in increasing code qulity.
- vector Candela studio diagnostic files integration.
- Maintain and develop fully automated CI build and deployment infrastructure and processes and support Continuous Integration framework based on Jenkins.
- Work across functional (development/testing, deployment, systems/infrastructure) and project teams to ensure continuous operation of build and test systems.
- Configured the COM Stack to fulfill customers specific needs and COM callbacks.
- Maintain and develop fully automated CI build and deployment infrastructure and ensure quality process.

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Fiat Chrisler (Stellantis) ECU - Aptiv-US- Infineon Aurix TC3xx

- **RTE integration and create requested port interfaces across sw component teams and functional safety teams using Davinci configurator and Developer and between BSW.**
- **contributing in safety CDDs and creating runnables like SMU alarms, real time measurements and watchdog supervised entities configurations and helped in maintaining project stability with new timing requirements.**
- **CANoe DBC integration and testing and updating canoe scripts to validate and test.**

- **implement new BSW requirements like OS Task configuration and splitting and create OS spinlocks along with memory mapping and linker scripts changes.**
- **write necessary SW requirements on polarion SRD,SAD,SDD and perform required SQTS and SITS.**
- **Create Runnables with Events mapped to Swcs and adapted new customer requirements into OS architecture.**
- **BSWM mode handling and BSWM rules changes ownership along with BSW integration**
- **perform unit test using vector CAST tool**

Denso ECU -Arm cortex A

- **implement AUTOSAR wrapper for CAN driver requirements and optimizations.**
- **provide necessary MCAL configurations ports,CAN and LIN configuration using MCAL EB Tresos Studio.**

Robotic Swarm Algorithm-Graduation Project
implement swarm intelligent algorithm performed on a set of robots to execute realtime tasks the robots were implemented using Atmega32, my particular role was implementing odometry algorithm and interfacing sensors like proximity and line tracker sensor that was used to detect the angle of rotation of the robots to make the robots able to identify it's position.

TECHNICAL

Programming Languages	C/C++, Python, JAVA, bash/shell MATLAB/Octave, Groovy, assembly.
Software Tools	visual studio,Code Composer, Vector Canoe, vector GENY configurator volvo engineering and diagnostic tool ,git, turtoise git, Jenkins, Davinci Configurator and Developer EB Tresos cygwin, gcc, cmake, makefile, OpenCV, HIL good knowledge of LINUX/UNIX shell commands. Familiar with Polarion, DOORS, JIRA, Gerrit Code review, Agile process and Scrum. Familiar with Quality standards-ASPICE quality model. Good understanding of CI/CD concepts.
Microcontrollers	ARM cortex M4, TivaC, ATmega32, STM32F4 stmIDE, AURIX TC3xx, TI Sitara board am57xx
Debuggers	TI blackhawk, XDS560v2 System Trace,Green Hills, lauterbach.
Communication protocols	CAN, LIN, SPI, UART,I2C. Familiar with XCP protocol DCM configuration for UDS diagnostics over CAN.

PERSONAL

Highly motivated and eager to learn new technologies.

Strong Analytical and logical thinking.

work in a group or alone.

Date Of Birth : 1-12-1992