**Reza Amani** Pakuranga heights, Auckland 2010

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Summary

Embedded SW engineer with 15 years’ experience in a variety of positions and fields, including embedded hardware/software implementation, signal processing, test and debug with a great track record of accomplishing projects within limited budget and time.

Technical skills

* Microcontroller hardware and software
* C, C++ and assembly
* Embedded programming within limitations
* Test and debug
* Python
* Visual C# and visual C++
* Developing peripheral drivers
* Agile methodology, Scrum
* TDD, unit testing
* Version control software; SmartGit, Gitlab
* Schematic and PCB
* Developing communication protocols
* Designing and implementing test jigs
* Predict future problems and providing best solutions during design stage
* Serial communication standards like RS485, RS232 and ZigBee
* Tackling wireless communication challenges
* Safety-critical programming, fault trees, IEC and AS/NZ safety standards

Soft Skills

**Problem solver:** Actively seeking and resolving technical and operational problems.

**Teamwork:** Extensive experience in team projects at different levels including small team leadership.

**Independent:** Able to work without being supervised; with preference for handle barriers in person.

**Supporter:** Eager to mentor colleagues and help them to debug their works.

**Time management:** committed to do the job in time with prioritising tasks and a fast pace

**Hands-on Engineering:** Involving closely and directly in all tasks of projects.

Attributes

* Action-oriented
* Co-operative
* Decisive
* Open-minded
* Can-do attitude
* Creative
* Calm
* Avid traveller

Experience

**R&D engineer, Project SW team supervisor**  2015-now

**Tru-test group**

Responsibilities:

* Embedded software programmer for a state-of-the-art energiser
* Signal processing; real-time pulse processing
* Ensuring compliance with safety standards; IEC,AS/NZ, EN
* Liaising with HW group on debugging SW/HW and system-level discussions
* Working on legacy codes, debugging and improving
* Code reviewing
* Technical supervising a small team of embedded SW engineers

Achievements:

* Suggested a new mixed SW/HW idea for safety module to reduce TMC and TTM
* Provided ideas to increase software development pace
* Improved the cooperation between HW and SW team by a common understanding
* 3 times titled as “Engineer of the sprint” among near 20 engineers in 8 months

**Embedded designer, system architecture** 2005-2015

**Pardazesh Basamad Ltd.**

An agile, small size, high-tech Company performing high-level R&D projects

Responsibilities:

* Programming embedded systems with C
* Choosing and setting up platforms; ARM, PIC and AVR microcontrollers, Piccolo and floating point DSP’s
* Developing GUI for control applications with visual C#
* Working with OLE databases with visual C++
* Designing and implementing serial protocols for wireless projects
* Technical negotiating with the costumer, providing solution and choosing platform
* Replacing RS-232 and RS-485 communication with ISM-band wireless modules in some old control systems
* Working on legacy codes, debugging and improving
* Utilising TI DSP’s and DSC’s for controlling high-power RF amplifiers and implementing telecommunication algorithms in handheld wireless transceivers

Achievements:

* Designed and implemented a high-tech AD-HOC FH-SS handheld wireless radio, using TI DSP’s and Analog Devices ISM-band transceiver modules
* Designed and implemented a wide-band spread-spectrum radio link for safe and secure control of UAV’s
* Designed and implemented a secure FH-SS video down-link for UAV’s
* Eye-catching records of budget and delivery time for 4 embedded control projects
* Developed a low-cost reliable embedded system to control chemical and pharmaceutical manufacturing systems with complicated processes
* Developed an automatic system to test digital cards of up to 80 I/O’s

**Digital electronics engineer, Driver/Firmware developer** 2002-2005

**Basamad Negar Ltd.**

Developer of laboratory and broadcast products

Responsibilities:

* Digital hardware designing; schematic and PCB
* Developing peripheral drivers for DSP and microcontroller in C and assembly
* Implementing simple GUI’s with visual C++ 6.0
* Planning and teaching costumers training courses

**Signal processing group member** 2000-2002

**Professor Hesabi organization (NGO)**

A scientific and research non-governmental organization

Responsibilities:

* PCB design, montage, primary tests
* Developing DSP drivers with assembly
* System test and evaluating

Education

**M.Sc. in Digital Electronics Engineering 2000**

**Sharif University of Technology**

Thesis: Debugging method for parallel-processing DSP systems

Implemented on a platform consisting 4 floating-point digital-signal-processors

Computer Skills

Altium/ Protel 99SE Visual C#/C++

Code Vision, Keil uvision, Eclipse, AVR studio Jira, Gitlab, Git, version control systems

Outside interests

Chess (Fide Rating: 1624, Howick club team member) Team sports, volleyball

Physics Classical music

Psychology Travelling

Referees

Available on request\*