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April 6 th.2020

I am interested in contracts as a freelancer, especially in tasks about the software development cycle (including analysis, design, development, test and maintenance). I consider myself a fast learner and a team player. I feel that I can make a contribution to any challenging development task.

Name	**Peter Gschwendtner**
Birthday	06.01.1959
Birthplace	Lindau (Germany)
Nationality	German
Education/academic	Diploma in mathematics
	1989-1997 Ulm University (major mathematics, minor computing science)

Skills / experiences (some of them can be considered to be ancient)

Programming Languages: C / C++, C#, Javascript, PHP, Ruby, R, Python, Java, Basic, diverse assembler, Pascal, Modula and other

Meta languages	Yacc (Bison), Lex (Flex)
Standards	ISO 9000, ASN.1 (X.208), GDMO, standards for GSM & ISDN, FDT/DTM
Data formats	XML, HTML, Postscript, HPGL, Dxf, Gerber, (HP) PCL
Protocols	GSM, UMTS, ISDN and TMN protocols as defined by ETSI, ITU-T, 3GPP etc.
Interfaces	USB, HMI, CAN, Bluetooth, Fieldbus, SCSI, RS232, Temex-B, Q-Interface
Databases	SQL, Access, Ctree, Dbase III
User interfaces	Qt, WPF, Windows Forms, GDI++, MFC, X-Windows
Design methods	OOA, OOD, OOP, UML
Process methods	Scrum, V-Model, Waterfall, Automotive Spice
Tools	Git, Subversion, Doxygen, Perforce, Clearcase, Visual Source Safe, MKS
Hardware	x86, ARM, Renesas H8 (MicroC/OS-II), Motorola 56300 (24 Bit), 68000, Perkin Elmer, PDP11, PDA

Experience

Period	Project

10/11- Consulting and development for a contrast agent injector
especially communication with computer tomographs

<u>Industry</u>: medical engineering
<u>Customer</u>: ulrich medical

<u>Jobs:</u>
- Analysis, adaption, merge and test of software for linux and embedded systems for various applications
  focus: communication with CT scanner confomant to CAN in Automation CiA 425
- Adaption of unit tests
- Documentation (interfaces, design, test)
- Problem analysis and adaptions of additional software tools mainly on windows
- Adaption and development of test scripts for a proprietary test system
- Setup and execution of tests
- Participation in a workgroup for ongoing development of a CANopen profile

<u>Skills:</u> C++/Qt, C#/DOTNET, Suse/Ubuntu Linux, MicroC/OS-II, UML, XML
for tests: ruby/python
<u>Bus systems/protocols/interfaces</u>: CAN/CANopen, USB, SocketCAN, D-Bus
<u>Hardware</u>: ARM (Linux), Renesas H8 (MicroC/OS-II)
<u>Tools:</u> Visual Studio, KDevelop, Eclipse, Enterprise Architect, Plant UML, Doxygen, Subversion, Git, JIRA, Bitbucket, Confluence
<u>Standards</u>: software development for medicine devices (e.g. IEC 62304), CAN in Automation (z.B. CiA 301), Automotive Spice, DIN ISO 9000

12/98-03/18 Development, maintenance and support for an EDA software product

<u>Industry</u>: Electronic Design Automation
<u>Customer</u>: CAD-UL GmbH

<u>Issues:</u>
- Build a MFC-Frameworks, combine it with existing software and establish synchronization between formerly separate applications based on multithreading and DLL technology
- Development of converters (IDF, GenCAD)
- Incorporated an USB Dongle, Development of software for license management
- Development of new functionality such as library browser, attribute browser, snap to midpoint functionality.

<u>Jobs:</u>
- Requirement analysis
- Development of proposals
- Design, implementation, test and documentation
- Reworking online help with reverse compilation of compiled help files
- Consulting and support
- Porting software from Visual Studio 6 to Visual Studio 2008
- Introduction of version control system subversion

<u>Skills:</u> C++, MFC, dxf, IDF, GenCAD, Gerber
<u>Tools:</u> Visual Studio 6/2008, CAMCAD Vision, MS Help Compiler, Subversion

08/09-12/10 Integration of voice recognition software for automotive applications

<u>Industry</u>: Automotive, Infotainment
<u>Customer</u>: Cerence (former Nuance)

<u>Jobs:</u>
- Integration and restr Restructuring of software and build process
- System tests, unit tests, analysis of bugs and source code for windows and QNX
- Adaption of software tools and build process, Anpassen von Softwaretools und Buildprozess, Making of a build script

Period	Project

10/07, 2/09 Porting of.NET software to display device data on pocket PC

Industry: industrial it
Customer: wetcon GmbH / industrial it

Skills: C#/.NET, Windows Mobile
Tools: Visual Studio 2005

11/06-03/09 Consulting, development, maintenance and support for embedded software for infotainment applications in automotive environment

Industry: Automotive, Infotainment

Issues:
▶ Analysis and redesign of parsers (vCard, vCalendar)
▶ Image conversion
▶ Analysis, test, simulation and enhancement of a flash file system
▶ Diagnostics, qualifikation and preparation of production of a freehand phone device with speech recognition, bluetooth interface and GSM module

TJobs:
▶ Analysis and specification of requirements
▶ Specification of implementation details including a protocol
▶ Development oft test tools
▶ Implementation of diagnosis component for the target
▶ Supervision of qualification and preparation of production
▶ Unit test, code analysis, system test, error analysis, code analysis

Skills: UML, C, CAN-Bus, Bluetooth, Motorola DSP56300, RTXC, QNX, Nand-Flash technology, (Lex/Yacc), (Flex/Bison), Eclipse, Image data formats
Tools: Together, Visual Studio, Doxygen, Perforce, Procom, Doors, Vector CANoe

03/06-06/06 Development of a GUI control for pactware (http://www.pactware.com)

Industry: industrial it
Customer: wetcon GmbH / industrial it

Jobs:
▶ Behavior analysis of available devices
▶ Design, implementation and test of the control

Skills: C#/.NET, XML, FDT/DTM
Tools: Visual Studio 2003, Pactware

10/05-10/06 Development support for a GUI component

Industry: medical engineering

Tasks:
▶ Feasibility evaluation of requirements
▶ Enhancement of a GUI component to meet new requirements
▶ Preparation for automated tests
▶ Consulting

Skills: C++, STL, gdi+
Tools: Visual Studio 2005, MS-SQL, Subversion, QTPro

Period	Project

09/02-09/05 Design and implementation of user interfaces (GUI) of a medical technology device with touchscreen interface, device control, image and video processing functions and patient management. Look and feel of the GUI realized according to corporate design.

Industry: medical engineering

Tasks:
- Analysis of graphics design requirements and interface definitions
- Contribution to specification
- Conception based on design patterns
- Adaption of VBA macros for source code documentation by doxygen
- Implementation, documentation and test of a COM component
- Supervision of subcontractors
- Test specifications
- Further development for consecutive releases
- Implementation of a software component for controlling a battery backup

Skills: C++, COM, ATL, STL, GDI+, IDL, HMI, VBA-Macros, UML, HMI, software design patterns
Tools: Visual Studio 6, Visual Studio 2003, Visio, Doxygen, Access

04/04-10/04 Design and implementation of an on-the-fly file system converter (proprietary format to FAT). The software was designed for a PCMCIA card drive without operating system. A PC based simulation facilitated full functional test of the software.

Industry: shipbuilding

Tasks:
- Analysis of requirements and development of conversion algorithms
- Technical specification, design, implementation, test and documentation
- Enhancement for flash updates

Skills: C++, C, Mororola 68040 (CPU32) assembler, Flash programming
Tools: Visual Studio 6, GNU compiler, BD32

10/02-06/03 Development of software for an automated laboratory

Industry: laboratory automation

Issues:
- Development of a weighing system based on a laboratory automation framework
- Analysis, development and test of a pH dosage software

Jobs:
- Creating new versions to incorporate updates of components
- Revising dosage

Skills: C++, MFC, SPS
Tools: Visual Studio 6, Doxygen

12/01 - 04/02 Development of an USB driver based on the windows driver model

Industry: Medical enginieeringMedizintechnik
Customer: R=I+S Rapp Informatik Systeme GmbH

Aufgaben:
- Analysis of reference driver software for linux
- Development of an equivalent USB driver for Windows
- Solving timing problems by restructuring
- Creating an installation script for driver installation

Skills: C++, USB, WDM
Tools: Visual Studio 6, Windows 2000 DDK

Period	Project

03/99-09/01 Development, support and training for protocol analysis (GSM, ISDN, UMTS, TMN)

Industry: telecommunication

Issues:
▸ Maintenance of a TMN protocol analysis system
▸ Development of protocol descriptions

Jobs:
▸ Creating new versions to incorporate updates of components
▸ Adapting installation
▸ Customer support
▸ Analysis of problems in provided descriptions
▸ Product training in English
▸ Analysis of protocol specifications
▸ Development and test of descriptions used to decode protocol data

Skills: TMN, Q3-Interface, GDMO, ASN.1/BER, ISO/OSI model, CMIP, FTAM, MMS, TCP/IP, GSM, UMTS, ISDN
Tools: Q-Monitor, Visual Studio 6, Installshield, Powerpoint, Clearcase

04/88 - 09/98 Development and development manager for an EDA CAD system

Industry: Electronic Design Automation
Customer: CAD-UL GmbH

Issues:
▸ Developments for a PCB (printed circuit board) layout system
▸ Developments for a SCM (schematic circuit diagram) system
▸ Developments for a CAM viewer/editor for postprocessing data
▸ Integration of autorouter software
▸ Develement of a database management system (component management)

Jobs:
▸ Requirement analysis
▸ Development of proposals for new features, algorithms, reports, GUI
▸ Design, implementation, test and documentation
▸ GUI development using MFC, GDI, formerly proprietary graphic libraries
▸ Management of outsourced development
▸ Development of automated tests
▸ …

Skills: C, C++, Win32, MFC, GDI, Ctree, Gerber, HPGL, PCL, postscript, dxf, pspice
Tools: Polymake, Pharlap Linker, DOS, Windows 3.1/95/NT, Unix; diverse compilers

07/87-03/88 Development of a test system for dynamic behavior of communication protocols.

Industry: telecommunication

Issues:
▸ Compilation of interaction diagrams from a specific textual language
▸ Interpretation of the generated structures
▸ Simulation of activities and responses of a communication partner
▸ Reporting of results.

Jobs:
▸ Design, development, test, docmumenation of an application
▸ Development of a DOS based GUI

Skills: C, RS232, Temex-B, BSC
Tools: C-Compiler, yacc, lex, Make