Peter Gschwendtner

Margarethe-von-Wrangell-Weg 62/1

89075 Ulm

Germany

Phone number: +49 731 95096 12

## FAX number: +49 731 95096 13

Cell phone: +49 172 800 7651

email: project@pegsit.de

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 injectorespecially communication with computer tomographsIndustry: medical engineeringCustomer: ulrich medicalJobs:* Analysis, adaption, merge and test of software for linux and embedded systems for various applicationsfocus: 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

Skills: C++/Qt, C#/DOTNET, Suse/Ubuntu Linux, MicroC/OS-II, UML, XMLfor tests: ruby/pythonBus systems/protocols/interfaces: CAN/CANopen, USB, SocketCAN, D-BusHardware: ARM (Linux), Renesas H8 (MicroC/OS-II)Tools: Visual Studio, KDevelop, Eclipse, Enterprise Architect, Plant UML, Doxygen, Subversion, Git, JIRA, Bitbucket, ConfluenceStandards: 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 productIndustry: Electronic Design AutomationCustomer: CAD-UL GmbHIssues:* 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.

Jobs:* 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

Skills: C++, MFC, dxf, IDF, GenCAD, GerberTools: Visual Studio 6/2008, CAMCAD Vision, MS Help Compiler, Subversion |
| 08/09-12/10 | Integration of voice recognition software for automotive applicationsIndustry: Automotive, InfotainmentCustomer: Cerence (former Nuance)Jobs:* 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
 |
| 10/07, 2/09 | Porting of.NET software to display device data on pocket PCIndustry: industrial itCustomer: wetcon GmbH / industrial itSkills: C#/.NET, Windows MobileTools: Visual Studio 2005 |
| 11/06-03/09 | Consulting, development, maintenance and support for embedded software for infotainment applications in automotive environmentIndustry: Automotive, InfotainmentIssues:* 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 formatsTools: 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 itCustomer: wetcon GmbH / industrial itJobs:* Behavior analysis of available devices
* Design, implementation and test of the control

Skills: C#/.NET, XML, FDT/DTMTools: Visual Studio 2003, Pactware |
| 10/05-10/06 | Development support for a GUI componentIndustry: medical engineeringTasks:* 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 |
| 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 engineeringTasks:* 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 patternsTools: 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: shipbuildingTasks:* 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 programmingTools: Visual Studio 6, GNU compiler, BD32 |
| 10/02-06/03 | Development of software for an automated laboratoryIndustry: laboratory automationIssues: * 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, SPSTools: Visual Studio 6, Doxygen |
| 12/01 - 04/02 | Development of an USB driver based on the windows driver modelIndustry: Medical enginieeringMedizintechnikCustomer: R=I+S Rapp Informatik Systeme GmbHAufgaben:* 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, WDMTools: Visual Studio 6, Windows 2000 DDK |
| 03/99-09/01 | Development, support and training for protocol analysis (GSM, ISDN, UMTS, TMN)Industry: telecommunicationIssues: * 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, ISDNTools: Q-Monitor, Visual Studio 6, Installshield, Powerpoint, Clearcase |
| 04/88 - 09/98 | Development and development manager for an EDA CAD systemIndustry: Electronic Design AutomationCustomer: CAD-UL GmbHIssues:* 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
* Develoment 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, pspiceTools: 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: telecommunicationIssues:* 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, BSCTools: C-Compiler, yacc, lex, Make |