CV

Henrik R. Scheel, Freelance Software Developer

My company:	Spjeldager Consult ApS
CVR-nr:	34491399
Address:	Spjeldager 9
	DK-2630 Taastrup
	Danmark
Cell phone:	+45 2720 9828
Email:	consult@spjeldager.dk
Family:	Wife and 2 kids
Date of birth:	23/12-1964
Languages (prof.):	Danish, English

Profile

Roles: Experienced software developer taking responsibility from requirements specification, analysis and design, through development; test; support and optimisation. I keep overview of stakeholders, teamwork, maintainability, quality and performance, while working on the details of the task at hand.

Technical skills: Strong logical thinker. Development of scalable, real-time, maintainable, high quality software which performs well. Technology agnostic: I am equally effective whether the development tasks are to be solved in C++, Java or C#; or if it is a Unix-server, Linux or Windows desktop, or an embedded OS in an IoT device.

Other abilities: Holistic perception, technical leadership and mentoring. Takes ownership and responsibility.

Personal profile: Analytical, intelligent and out-of-the-box problem solver with a sense of humor. I learn new skills fast.

Competencies

Competence	Experience	Level	Use
Analysis, design, code, test, bug fixing and deployment	25+ years	Expert	Recent
Scripting (bash, DOS batch-files, python, perl, etc)	25+ years	Expert	Recent
Unit test coding	23 years	Professional	Recent
OOA / OOD / OOP	21 years	Expert	Recent
Version control: Git, Clear Case, CVS, TFS, Subversion	19 years	Professional	Recent
C++ : Linux / Unix / Windows	15 years	Professional	Recent
Change workflow: Jira, QC, Version1, redmine, RMtrack	13 years	Knowledge	Recent
Working in teams across cultural and geographical borders	13 years	Professional	Recent
Unix / Linux internet server / router configuration	12 years	Professional	Recent
Scrum team work	7 years	Knowledge	Recent
Automated test: Code, config, reporting and maintenance	7 years	Professional	Recent
C# / .NET development	6 years	Professional	Recent
Continuous Integration (Jenkins, CircleCI, TeamCity)	3 years	Knowledge	Recent
Java development (Camel integration, android app)	2 years	Knowledge	Recent
OBD-II & CAN bus	2 years	Knowledge	Recent
Google cloud services and deployment	< 1 year	Knowledge	Recent
C++ / CLI & native C++ on Windows	2 years	Professional	Recent
TCP/UDP div protocols, analysis and problem solving	9 years	Professional	2019
SQL (MySQL, MS SQL, Oracle SQL)	7 years	Professional	2019
Performance measurement, analysis & optimisation	25+ years	Expert	2017
UML / design documentation	6 years	Knowledge	2017
Embedded development	4 years	Professional	2017
JavaScript	1 year	Knowledge	2017
Python	< 1 year	Knowledge	2017
Ipv6 services (e.g. DHCPv6 client & server)	2 years	Professional	2016
TR069, ACS	3 years	Professional	2015
Doxygen / javadoc documentation	5 years	Professional	2014
Instrumentation and problem solving on live systems	4 years	Professional	2013
HTML5 & CSS	1 year	Knowledge	2013
Zwave, Zigbee & Jennet 6LoWPAN	< 1 year	Knowledge	2013
Windows server resource instrumentation and analysis	3 years	Expert	2012
Modbus TCP interface protocol	4 years	Professional	2012
IEC 60870-5-104 interface protocol	2 years	Professional	2012
OPC DA, OPC DA XML	1 years	Knowledge	2012
IEC 61400-25 data model	1 years	Knowledge	2012
Version control branch & merge strategy and execution	3 years	Professional	2011
XSD/XML	2 years	Professional	2011
Lots of obsoleted technologies	10+ years	Expert	Pre 2010

Previous assignments as freelance developer

Spjeldager Consult ApS is my freelance business:

2020-01 – 2020-09: External consultant at EPOS Audio: Coding device-specific communication protocol in portable modern C++. Analysis of existing C & C++ code, packet capture analysis, unit-tests, automated device testing, Jenkins build pipeline improvements, git version control, scrum, automated testing, working remote, working with teams in India and Denmark.

2017-11 – 2019-12: External consultant at BankInvest: Lead developer on integration project: Using test-driven development, coding multiple business critical integration microservices in Java for Camel, deployed on Redhat JBoss server. Completing and maintaining windows development project in C#. Maintenance and bug-solving on legacy windows apps and services in C++. Maintenance and bug-solving in windows apps and services written in C#. Enterprise Integration Patterns, Windows, Redhat JBoss, server, Camel, Java, C++, C#, Oracle SQL, Subversion, IntelliJ IDEA, IntelliJ ReSharper, Visual Studio, Embarcadero, Jira, TeamCity.

2017-03 – 2017-10: External consultant at Napatech: Linux-server based proprietary software. Responsible for project integrating new proprietary high-bandwidth network hardware into existing software. General bugfixing in C++ and python. Migrating source from SVN to GIT. Jenkins Continuous Integration pipeline changes and improvements. Risk-assessments, planning, coordination, testing. Linux, C++14, python, bash, system d, groovy.

2015-06 – 2017-02: External consultant at Greenwave Systems: Embedded C++/Linux. Development of features for new linux-based router in agile scrum team. Wifi 802.11ac, 802.11n. Embedded, C++11, Linux.

2014-11 – 2015-05: External consultant at MAN diesel & turbo: Visual C++/windows. Calculations from Matlab: Code and unittests in native C++, interface via managed C++/CLI, use from C# .NET klienter.

2014-04 – 2014-10: External consultant at Greenwave Systems: Embedded C++/linux. Development of features for new linux-based router in agile scrum team: TR69, wireless management. Embedded, C++11, linux.

2013-09 – 2014-04: External consultant at Greenwave Systems: Embedded C++/linux. Development of features for new linux-based internet multimedia router: dhcp client and server configuration, radvd server configuration, patches for opensource packages and diverse management code. Embedded, C++11, linux, IPv6, DHCPv6, radvd, Cortina Network Engine, TR69, parental controls.

2013-06 – 2013-08: External consultant at Greenwave Systems: Embedded C++ / linux. Bugfixing newly developed energy management internet gateway, fixing Jennet lightbulb functionality; ensuring critical performance parameters for ZWave error handling. Embedded, C++, linux, TCP, 6LoWPAN, ZWave, ZigBee, Jennet.

2013-01 – 2013-04: External consultant for Key2Mobility: Customer specific customizations of PreCom Service Edition for different cumstomers, as well as performance improvements (cutting half the start time): PreCom, .NET, C#, SQL-queries, SQL Server, SQLCe, Windows Server, Windows Client, Windows Mobile, .NET Compact Framework 2.0, MSMQ.

2012-09 – 2012-12: External consultant at Foss Analytics: Bug hunting in embedded prototype system (instability and time-critical performance), defect fixing, specified test procedure, branch integration merge. System time-to-failure was improved from less than 60 minutes to more than 100

hours (the minimum goal was 16 hours). Embedded, C++, C#, .NET, TCP, UDP, SQL Server, CLR Profiler, minidump-generation and analysis, windbg, perforce, Quality Center.

2012-08 – 2012-09: Lean-startup project: Deployment of "minimum viable product" to test market reaction. Cloud-based web-service for "social networking with geolocation": Facebook, cloud, heroku, node.js, git, github, MongoDB, HTML5, JavaScript, geolocation API, google maps API, mongoskin.

2012-07 – 2012-08: Vacation.

2012-04 – 2012-06: Learning project: Development of cloud-based web service for continuous registration of electric power meter readings: Cloud, cloudfoundry, node.js, git, MongoDB, HTML5, web-page-scraping, JavaScript, mongoskin, cloud9.

2012-05: Establishment of Spjeldager Consult Aps.

Earlier roles on employment contract

Contact me if you need references.

2008-2012: Siemens Wind Power A/S, Development Engineer, SCADA software.

Siemens Wind Power produces wind power plants consisting of hundreds of wind turbines, all monitored and controlled by one SCADA system. The system is maintained and improved in the SCADA Software department of Siemens Wind Power, where I was employed.

2011/12-2012-02: Design of IEC 61400-25 / 61850 client interface module.

2010/05 - 2012/02: Scrum master and mentor on geographically and culturally divided team (east- and west of Denmark, and Bangalore, India). Through reviews and close collaboration with the new developers and testers in Bangalore I ensured that the necessary training in "the flat Danish development culture" was applied, so the products of the team maintained the proper level of quality. Requirements analysis, design, coding and test of additional functionality and bug fixes of the SCADA-system's interface modules: Modbus, OPC DA (XML), IEC 60870-5-104. Support and bug fixes in on-site SCADA-systems during commissioning and production. Technology: Windows system resource instrumentation, driver debugging. Coding of modules for a configuration tool. Technologies: Windows Application development, C#, .NET, XSD, XML.

2009/11 - 2010/04: Strengthening on-going project: Testing, bug hunting, bug fixing and verification of delayed SCADA interface module according to standard IEC-60870-5-104. Technologies: C# / .NET, Visual studio, TFS. The interface module was successfully certified by Kema according to the IEC-60870-5-104 standard.

2009/06 – 2009/11: Team lead for project group to improve stability of the SCADA system by instrumenting and beta-releasing on a highly loaded live system: Memory leaks etc. The stability of the SCADA system (due to resource leaks) was improved enough that the software stability no longer had any influence on the server stability. The project was executed without any negative influence on the live system's performance or functionality. Technologies: C#, Visual Basic, C++, instrumentation, leak analysis.

2009/06: Assistant and reviewer for the project management for deciding TFS version control stream & branch strategy.

2009/03-2009/06: On leave: 3 months travelling with my family, in Asia.

2008/10 - 2009/03: Requirements specification, design, coding test, unit test coding and first go live configuration and debugging of new generic modbus TCP interface module for the SCADA system. Technologies: Dependency injection, C# / .NET, Visual Studio, MS SQL, MySQL, modbus TCP. In the same period I took the initiative to start recurring workshops for technical knowledge sharing (and Friday afternoon beer talks) across software teams in the recently opened Taastrup-office. The goal was to improve spirit by "non-project" interactions. Mission accomplished.

2008/09 – 2008/10: Bug hunting and –fixing on the SCADA-system: Windows server "grey-out" when utilizing a new interface module for communication to many turbines. The problem was solved by adding a transmit-queue to the interface-module, minimizing the consumption of windows TCP port socket connections. Technologies: C#, windows sockets, windows server, TCP.

2002-2008: IBM / Maersk Data (Maersk Data was purchased by IBM in 2004)

IBM Transport develops and maintains the business critical systems for the container shipping company Maersk Line. The GCSS-system, that I mainly worked with, is the central system in Maersk Lines systems, unifying business processes world-wide, replacing many different regional and local systems when rolled out.

2008: Advisory IT-consultant: Development of automated scripts for processing performance data for Maersk Line's systems. Technology: MySQL.

2007-2008: Advisory IT-consultant: Coding and testing functional changes and additions to "Fødevarestyrelsen" (department of food safety) system for reporting inspections (The smiley-reports). Technologies: C# / .NET.

2007: Advisory IT-consultant: Participated in CMMI level 3 development process evaluations used on the GCSS project.

2007: Advisory IT-consultant, GCSS: Performance measurements, analysis and optimizations: Decreased time-consumption of a critical software module created by another team, by instrumentation, analysis and optimization 3-fold, by optimizing the order of expressions, utilizing C++ partial evaluation to avoid costly expressions. Technologies: C++, instrumentation, Sun Solaris.

2006-2007: Advisory IT-consultant, GCSS: Technical leadership; C++ coding; test; documentation, team lead for training the new off-shore development team in GCSS. By assigning every Danish developer responsibility for a part of the curriculum of the training, the training not only provided the best foundation possible for the new developers, it also turned the beginning negative attitude in the Danish team into a professional "team-play" attitude towards the off-shore team. I was subsequently awarded a "Bravo-award" (dkk 15.000) for commitment to planning and executing this assignment.

2005-2006: Senior IT-consultant, GCSS: Design and coding of functionality and features of a test script language (C++); training Bulgarian IT-consultants in the test-script-langiage. Configuration of statistical graphical reports of the day to day results of automated test runs; optimization and bug fixing; technical design. Technologies: C++, Sun Solaris, Oracle SQL, IBM MQ, test-driven development. Developed a "test-script recorder" for the GCSS-system, so a "user track" can be recorded as an executable test script. Great for reporting errors. By adding checks, the recorded script can be used as a basis for automated unit-tests. Technologies: Internal Oracle system tables.

2004: Senior IT Consultant: Team lead for development tem for a GCSS contingency solution module. Technologies: C++, Oracle SQL, IBM MQ, ClearCase, unit test, automated testing.

2002-2004: Software developer, GCSS: Development of high performance server-side business logic according to design. Technologies: Sun Solaris, Bea Tuxedo, C++ coding, Oracle SQL, IBM MQ, ClearCase, Doxygen. Strong participation in very agile team reaching tough deadlines without compromising quality.

1999-2002: Digiquant

Digiquant marketed one product: The IMS (Internet Management System). IMS is a distributed solution for defining online services, subscription management, real-time rating, billing and invoice generation. The system is used by telecom and Internet service providers. System characteristics: Real-time; high availability; high performance.

2001-2002: Software developer: Test, added functionality and bug fixes in software module for 'scripting' calculations. Technologies: C++, Sun Solaris, Oracle SQL, TOAD.

2001: Consultant: On-site consultant/developer at Tiscali in Italy, for 3 months. Coding functionality for internet-access and telecom end-user products. Technologies: Oracle PL/SQL, TOAD, Sun Solaris, Linux.

1999-2001: Software developer: Requirements specifications; analysis; design; coding and test of new account and billing module for pre-paid phone services amongst others. Technologies: C++, HP-UX, Sun Solaris, CORBA, Linux, Oracle SQL, TOAD, dependency injection.

1999/04 – 1999/08: Long backpacking tour in South America with my girlfriend.

1987-1999: Geo (the Danish Geotechnical Institute)

Geo is an engineering company specializing in soil measurements in field and laboratory, and calculations for large scale constructions like the Great Belt bridge and the Øresund bridge and tunnel. My role was to code and maintain engineering software for field, lab and desktop use.

1999: Consultant: Development of an excel sheet for the Danish environmental agency: "JAGG". VBA, Excel, Windows.

1998: Software developer: Code-review, optimizations and improving precision of finite element calculations. Porting calculations to MSDOS application, copy-protection with encryption and hardware key. Development of a windows application to "encapsulate" the DOS-program (SPOOKS). Test and support. Technologies: C++, XVT++, Fortran, Windows, MSDOS, GhostScript, PostScript, Aladdin "HASP" key, InstallShield.

1996-1998: System developer: Development of software for data-aquisition. Technologies: C++, MSDOS PC, near realtime, development of communication protocol for serial data transfer. Design, coding, test and support of software for entering, converting, editing, calculating and graphical presentation of measured data from laboratory tests or field measurements. Technologies: C++, XVT++, 16-bit Windows, MSDOS, PC, PostScript driver. Coding, test and maintenance of "mini-CMS" software for generating HTML-pages on the web-server. Technologies: Perl, bash-scripting, Linux.

1992-1998: System developer: Design, coding, test, support and maintenance of modularised, generic laboratory test software (CUBIC and more) with 'scriptable' real time process control and data acquisition for weeklong test sequences. Interface modules for physical actuators, dataloggers and Mettler-weight. Technologies: HP-Basic (Rocky Mountain Basic).

1996-1997: System administrator: Configuration and maintenance of web-server and intranet-services. Technologies: Linux, Apache, bash, Perl-scripts, cron, DHCP, BOOTP, TFTP, FTP, SMTP, IMAP, HTTP, masquerade, port-blocking and port forwarding (linux firewall/router config).

1988-1995: Software developer: Architecture, design, coding, test and support of software for data acquisition and real time laboratory test process control. Technologies: HP-basic (Rocky Mountain Basic), HP-IB / IEEE-388, physical force and pressure actuators, data loggers and Mettler weights. Design, coding, test and support of software for entering, converting, editing, calculation and graphical presentation of measured data from laboratory tests and field measurements. Development of common software libraries. Technologies: Fortran, Prime minicomputer, Convex vector processor, terminals, plotters and printers.

1987: EDB-assistant: Development of software for entering and editing position data and measured data, as well as graphical presentation on terminal screen and plotter. Technologies: Fortran, PrimeOS, Prime mini computer, VT-100 terminals.

Courses, education and self-taught skills

2018:	Camel/Java
2018:	Embarcadero/C++
2017:	OBD-II & CAN bus (automotive).
2017:	Android app/Java
2017:	Python
2017:	C++14
2015:	Microsoft managed C++/CLI
2013:	C++11
2012:	Perforce, PreCom.
2012:	HTML5, JavaScript, Node.js, CSS, web-service cloud deployment, git, github.com, socket.io, web-scraping, node-inspector, cloud9, mongoDB, mongolab.com, mongoskin.
2011-2012:	IEC 61400-25 data model & 61850 interface protocol (design level).
2010-2011:	OPC interface protocol. IEC 60870-5 (interface protocol) training. TOGAF (enterprise architecture) level 1 certification (CID: 40329).
2008-2009:	Modbus interface protocol. Structured test training.
2007-2008:	Microsoft Certified .Net 2.0 technology specialist, C# (MCTS Cert nr: C931-4627).
2006:	Design patterns training.
2005:	Boost (C++ library) training.
2004:	Automated unit testing and reporting.
2002-2003:	Arranging C++ workshops for Knowledge sharing in the developer teams.
2001:	Oracle PL/SQL.
2000:	Oracle SQL+. UML. Multi-threading (Unix / Linux).
1996-1999:	Linux and GNU tools. Bash shell. Perl. Installation, configuration and maintenance of linux servers. TCP/IP services configuration: TFTP, BOOTP, DHCP, DNS, SMTP, HTTP, FTP, SMB, firewall. Linux client and server configuration.
1990-1996:	Courses in OOA, OOD and C++. LAN design and maintenance. Vector processor dev. Regulation and control. User-friendly programs. Real-time data acquisition and control.
1987-1990:	Administration and coding (Fortran) on mini computers.
1984-1987:	Studying computer science at the University of Copenhagen

About me

- Comfortable working in agile teams. Always open to other viewpoints.
- Fascinated by science and new technology. At school I always preferred physics class.
- Analytical and intelligent, with a good sense of humour.
- I value openness, honesty, dependability and team play (old boy scout).
- I am good at focusing on how to reach the goals the team and I are committed to, seeing and addressing “blockers” ahead of time.
- I am able to take on different tasks and roles, so project managers have used me for a Multi-tool: When out-of-the-ordinary tasks needed a creative and/or analytical solution, the task was assigned to me.
- I engage myself in the purpose of my work, and take responsibility for completion.
- I have experience from development processes in very different organisations. When flaws in the process cause non-optimal team performance, I can suggest how to improve the process.
- Concerned about the environment. Making pragmatic improvements in CO2 footprint from the daily life of my family (solar heating, solar electricity, electric car, heat pump).
- My wife and I have two daughters to whom I devote most of my leisure time; the time left is spent on kayaking, and advocating electric cars.