

# CHRISTOPHER PETER GATCOMBE

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## Summary

**PRINCIPAL SOFTWARE ENGINEER**, with extensive experience in quality technical software development, control system software and networks, in the research and industrial fields. With specialist skills in:

- C, C++, C# .Net languages (Borland and Microsoft Visual Studio development tools)
- Unix/Linux (system administration, shell scripting, development tools)
- Source code and configuration control (Subversion, Clearcase); defect tracking (Bugzilla)
- User interface design
- Web site management and design (HTML, CSS, JavaScript, jQuery, Perl)
- Microsoft Windows, Office applications and system administration
- TCP/IP networking
- SECS/GEM semiconductor standards

## Professional Experience

**PRINCIPAL SOFTWARE ENGINEER**, Semilab USA, Billerica, MA. 2005 to 2012

Semilab USA (formed by the acquisition of QC Solutions and Advanced Metrology Systems by Semilab of Hungary) manufactures metrology tools for the contactless measurement of semiconductor wafer and photo-voltaic material properties.

Responsible for development of new generation of control software as the QC Solutions tools become integrated into the Semilab platform. Reporting to Director of Product Development.

- Application software written in C# (MS Visual Studio).
- Remoting used for subsystem servers; server configuration via XML.
- Implemented Subversion to control source code changes (moving from SourceSafe and MKS), and Bugzilla for defect and issue tracking.
- Use of SecSim and TestConnect for testing SECS/GEM messaging.
- Legacy application software written in C++ (Borland C++ Builder; some DLL components written using MS Visual Studio).

As QC Solutions system administrator (2005-2009), responsible for entire company network, comprising a mixture of Windows NT/2000/2000 server/2003 server/XP/Ubuntu Linux workstations and servers.

- Adding users and PCs to network (Active Directory users and groups, DNS, IMail mail server).
- Scheduling backups (Veritas Backup Exec).
- Management of the InterTel 5000 phone system.
- Network security and monitoring (Sonicwall firewall, Barracuda spam prevention, Symantec antivirus, Nagios monitoring).
- PC and network maintenance and troubleshooting.
- Implemented new-look company web site.

**SENIOR SOFTWARE ENGINEER**, FEI Company, Peabody, MA.

1998 to 2005

FEI Company (formerly Micrion Corporation, acquired by FEI Company in 1999) manufactures focussed ion and electron beam systems, used in electron microscopes and deposition/etching tools for photomask repair.

- The new generation of photomask repair tools ran on a Windows 2000 platform with distributed software sub-systems. Code was written in C++/MFC using MS Visual Studio, with Active-X/COM controls.
- The older generation of photomask repair tools ran on a Unix/AIX platform, under the Motif/X-windows environment. Software was designed for simplicity and extensibility, and was written in C with embedded Tcl scripts. Coordinated the software development effort as the software matured and the Unix platform reached the end of its lifetime. Various automated build and reporting tools were written with shell scripts.
- Rational ClearCase was used for all source code revision control, and Rational ClearQuest was used for defect and issue tracking.

### Additional experience

**SOFTWARE TESTER**, Lernhout and Hauspie, Burlington, MA. (Short-term contract)

Performed a series of voice recognition test procedures against a script, recording the behavior of the software for the developers.

**SENIOR SOFTWARE ENGINEER**, Eaton Corporation, Semiconductor Equipment Operations Division (now Axcelis), Beverly, MA.

Enhanced factory automation communications software using SECS/GEM protocols (C/Unix/VxWorks, with ClearCase revision control).

**SOFTWARE ENGINEER**, Tessella Support Services, Abingdon, UK.

Designed and implemented software for control and monitoring of microwave scattering in plasmas (C/Unix/VxWorks/X/Motif).

Enhancements to CAD package for banknote and high security document printing (Fortran 77/DEC MACRO/DEC Micro Vax).

**RESEARCH ASSISTANT**, The City University, London, UK.

Developed computer models to predict the behavior of prototype ultrasonic transducers for non-destructive testing (Fortran 77/Unix).

**WEBMASTER**, hobby and author websites (ongoing since 1997).

Webmaster of [www.gatcombe.com](http://www.gatcombe.com) and [www.danelleharmon.com](http://www.danelleharmon.com) sites (FreeBSD host; local development done on Slackware Linux system, using HTML, vim, make, sed, cpp, CSS, JavaScript, jQuery).

### Education

Ph.D. Physics, The City University, London, UK.

Thesis: "Computer Modelling of High Resolution Ultrasonic Transducers."

B.Sc. (Hons) Electronics and Physics, Chelsea College (now Kings College), London University, UK.