

# Resumé of Michael FIG, PMP

<http://michael.fig.org/resume/MichaelFIG.tex><sup>1</sup>

## Highlights

Michael is a project manager and programmer analyst who specializes in refining and retrofitting existing software to solve new problems. His qualifications include:

- Practical sales-driven software development and project management.
- Extensive involvement in Free Software development on the Internet.
- Web application, systems programming and administration experience, with emphasis on network protocols, network security and software portability.
- Works well with others.

## Personal Information

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Birthdate: September 16, 1975

## Education

### Formal

2005–present Project Management Professional, Project Management Institute.  
1995–1996 Undergraduate, Computer Science, University of Calgary.  
1993–1995 Undergraduate, Engineering and German dual-degree program, University of Calgary.  
1992–1993 International Baccalaureate Diploma, 33 out of 42 points.

- Higher level: English, History of the Americas, Biology.
- Subsidiary level: German, General Chemistry, Mathematics.

### Informal

1993–present Learned to program in several computer languages, including: assembly (Intel i386 (1994), Motorola m68k (1996)), Bourne shell (1994), C (1994), C# (2004), C++ (1996), Emacs Lisp (1994), Erlang (2006), Forth (2002), Haskell (2006), HTML (1994), Java (1996), Javascript (2002), L<sup>A</sup>T<sub>E</sub>X (1996), O’Caml (2006), Perl (1994), PHP (2002), Pliant (1999), PostScript (2000), Python (2002), Scheme (1999), SQL (2002), and Visual Basic 6 (2002).

Learned software development cycle and maintenance techniques for small- to medium-scale projects, including distributed development over the Internet.

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<sup>1</sup>The L<sup>A</sup>T<sub>E</sub>X source code for this resumé is available upon request. Share and enjoy.

Learned how to install, use, and administer several different operating systems, including: MS-DOS, MS-Windows (many flavours), AIX 4, Ultrix 4, SunOS 4, Solaris 2, FreeBSD, NetBSD, GNU/Linux (Slackware, Debian, Ubuntu, and Red Hat distributions), and GNU/Hurd.

## Experience

2002–present

**MarkeTel Systems, Inc.** *Sr. Developer*

Designed and implemented Pursuit Advanced Telephony Server software as a modified Asterisk PBX system managed by a complete Erlang/OTP release under Linux/i386. Wrote Pursuit client/server management software in C#.

Codesigned and coimplemented SuperScript, a PHP 4 survey questionnaire web application running on both Microsoft Windows and Linux/i386 platforms. Optimized SuperScript performance by changing network server from Apache to Yaws and reimplementing time-critical portions in Erlang.

Designed and implemented Slog 1, an internal TCP/IP client/server punchclock application using Visual Basic 6 and MySQL. Added a PHP 4 web interface to Slog. Codesigned and coimplemented Slog 2 as a TCP/IP and UDP/IP peer-to-peer network application in C#.

Redesigned and retrofitted an internal PHP 4 and MySQL customer relations management (CRM) web application.

Coimplemented proprietary soft-realtime telemarketing dialer firmware for the MKII dialer hardware using GCC for the embedded Motorola HC11 chip.

Codesigned and coimplemented the Grand Unified Firmware (GUF), a portable low-level predictive dialer switching software written in C initially targeting the original MKII hardware, the GMD hardware (based on an embedded Motorola MC68020 chip), and also running as a regular application on Linux/i386 using Intel Dialogic telephony card APIs.

Codesigned and coimplemented Prospector, a soft-realtime control system for proprietary dialer hardware, written in Visual Basic 6 and Microsoft SQL Server 7. Designed a custom messaging system to enable asynchronous calls between VB6 apartment threads in order to help guarantee responsiveness.

Redesigned and implemented Virtual Display, a free software TCP/IP network client for Prospector and Rapid Contact written in C++ using the wxWindows toolkit 2.4 on Windows and Linux/i386. Codesigned and coimplemented Virtual Display for Perl/POE/Curses, and Virtual Display Pro (in Visual Basic 6).

2002–2004

**Follow the System Marketing, Inc.** *Consultant*

Codesigned and coimplemented the Online System Manager, a web toolsuite for home-based business using Perl, mod\_python, and PostgreSQL.

1994–2004

**The GNU Project** *Volunteer Contributor*

Submitted feature enhancements and bugfixes for several different free software systems, including: Automake, CVS, Emacs, Fetchmail, FreeBSD, the GIMP, GNU C Library, GNU Mach, Gnus, Hesiod, the Hurd, Kerberos 5, NetBSD, Pliant, RScheme, SANE, Stow, Texinfo, Wget, and Xmorph.

2001–2002      **Cluster File Systems, Inc.**      *Consultant*

Learned the use of User Mode Linux in testing and debugging Linux kernel modules for InterMezzo, a free client/server network distributed filesystem.

Created RPM packaging for Lustre, another free network distributed filesystem. Used Tinderbox to manage an automated build and test suite for Lustre.

1998–2002      **Excel Consulting, Ltd.**      *Consultant*

Worked for diverse clients as a computer consultant:

- Provided user training and application support.
- Installed and configured home PCs, printers, serial terminals, workstations, application servers, network proxies and firewalls, for both Unix-like and Windows operating systems.
- Wrote scripts to assist in system administration.
- Performed PC hardware upgrades and minor repairs.
- Ported a customer's internal Informix application from SCO XENIX to Linux/i386.

1998–2001      **The GNU Project**      *Consultant*

Worked for the Free Software Foundation to help develop and distribute the complete GNU operating system, based on the GNU Hurd:

- Comaintainer of the subversions.gnu.org CVS server.
- Comaintainer of GNU GRUB, a flexible bootloader.
- Coauthor of the GNU Hurd Reference Manual.

2000–2001      **Mountain View Data, Inc.**      *Consultant*

Designed and implemented a custom source build environment for InterMezzo.

Codesigned and implemented a Perl Sun RPC module, to replace InterMezzo's original custom network protocol.

1996–1999      **The GNU Project**      *Volunteer Maintainer*

Designed, implemented, and maintained GNU Libtool, a multi-platform shared library creation script.

1996–1998      **Mercury Information Technology, Inc.**      *Consultant*

Designed and implemented a cross-platform TCP/IP client/server remote procedure call system called WebRPC, which uses Java, C, and COBOL stubs to process secure transactions.

Designed and implemented Internet Banking solutions for two separate province-wide financial institutions using WebRPC.

Helped perform security audits for oil and gas companies in Calgary, and an Israeli financial institution. Responsibilities included:

- Diagramming existing computer network topology, and evaluating for potential weaknesses.
- Performing interviews of company personnel to discover perceived weaknesses and proposed solutions.
- Performing diagnostics of network servers, gateways, and dial-in machines. Writing and extending programs to automate these procedures.
- Documenting findings, determining risks, and recommending corrective measures.

1993–1997

**University of Calgary** *Programmer Analyst*

Designed and implemented a LAN of over 120 workstations running Red Hat Linux and Windows NT.

Designed and implemented a LAN of 48 Unix-based workstations, shared between undergraduate Electrical Engineering students. These machines ran Red Hat 3.0.3, and 36 of them were able to dual-boot to Windows NT.

Designed, implemented, and helped administer a heterogeneous LAN of over 70 Unix-based workstations, shared between 750 undergraduate Engineering students. About 20 of the machines ran FreeBSD 2.1.5; the others were DECstations running Ultrix 4.2.

Coadministered a small heterogeneous LAN for Civil Engineering. The network included SunOS 4 workstations, a central SunOS server, and several DOS and Macintosh-based PCs. Improved Unix security, redesigned topology for a new FreeBSD gateway, Red Hat Linux workstations, and plans for a large compute server (an SGI Origin 2000, installed in 1997).

## References

Available upon request.