# Joshua M. Glover (jmglov@wmalumni.com)

## Employment

**Senior Software Engineer** *April 2005 - Present*
Twenty First Century Communications, Inc. (http://www.tfcci.com), Columbus, Ohio, USA

- Responsible for taking a lead role in architectural / systems design and implementation of projects.

- Experience with Java SpeechChannel API, GSL / GrXML grammar development and SIP audio provider components of the Nuance Advanced Speech Recognition system.

**Software Engineer** *July 2003 - April 2005*
Twenty First Century Communications, Inc. (http://www.tfcci.com), Columbus, Ohio, USA

- Lead developer in ground-up re-design and re-write of Universal Communications System (UCS), our flagship product.

  - Designed three-tier architecture: webservers communicating via SOAP to appservers, which in turn communicate with database servers.
  - Designed and implemented Perl application framework enabling client and server SOAP, Oracle and MySQL database connectivity, and a HTML and JavaScript-based web interface.

- Implemented an Interactive Voice Response (IVR) application framework using NMS Communications' Natural Call Control software to drive NMS AG4000TN quad-T1 ISDN boards.

  - Written in C, using POSIX threads and libsqlora8 for Oracle database connectivity.

- Implemented CGI / mod_perl web application framework in Perl that later became the underpinning of the web applications for the UCS2 project.

- Introduced many infrastructure improvements, including:

  - Revision control system (first CVS, then Subversion).
  - Bug tracking system (BugPort).
  - Public-key cryptography (GnuPG and the PKS keyserver).

**Assistant Systems Administrator** *February 2002 - July 2003*
INCOGEN, Inc (http://www.incogen.com), Williamsburg, Virginia, USA

- Responsible for day-to-day maintenance of hybrid Windows / Unix (Solaris, Linux) network, including deploying new servers and workstations.

- Responsible for network security.

- Involved in planning for future infrastructure expansion and re-design.

- Designed and implemented software systems for various aspects of systems administration (user accounts, email, file storage, backups).

- Involved in development of several Open Source projects, including mod_auth_pam, Samba, arpwatch, and mpiBLAST.

**Software Engineer** *May 2000 - October 2000*
Tovaris (http://www.tovaris.com/), Charlottesville, Virginia, USA

- Designed, implemented and maintained internal quality assurance testing network using Red Hat Linux and FreeBSD and Open Source tools such as Perl, PHP, ISC BIND, ISC DHCPd, SSH, Cyrus Secure IMAP server and qmail Secure SMTP server.

- Designed and wrote a test suite for Mithril Secure Server, our flagship product, in Perl, utilising SSH, Secure SMTP, and Secure IMAP technology.

## Education

**Bachelor of Science, Computer Science** *August 1998 - May 2003*
The College of William and Mary in Virginia (http://www.wm.edu/), Williamsburg, Virginia, USA
Graduated: May 2003 GPA: 3.2

- Courses (most recent first): Unix Kernel Internals, Operating Systems, Networks, Systems Programming, Compiler Construction, Finite Automata and Theory of Computation, Computer Graphics, Software Engineering, Computer Organisation, Programming Languages, Calculus, and Linear Algebra, et al.

- Awarded Computer Science and Math scholarship for 2002-2003 school year.

- Awarded Japanese Ministry of Education (Monbusho) Scholarship for 2000-2001 school year to study at Kanazawa University in Ishikawa Prefecture, Japan.

- Dean's List for Fall 1998 Semester.

## Skills

- Experienced with C, C++, Java, Perl, PHP, and Python programming languages, as well as Unix shell scripting.

- Experienced in network and system administration in Linux, BSD, and Solaris environments.

- Experienced in web application design and implementation using HTML, PHP, Perl, Oracle, MySQL, and Apache web server.

- Experienced in data network design, implementation and support with ethernet / switching hardware and Unix and Windows servers and clients.

- Strong interpersonal skills, both in dealing with customers and dealing with co-workers and management.

- Can speak, read and write Japanese.

## Other Interests

- Listmaster for the Tokyo Linux Users Group (TLUG).

- Gentoo Linux developer.

- Contributing author to <u>Retro Gaming Hacks</u> (O'Reilly, due out in August 2005).

- Contributed to and authored several Open Source projects; details can be found at
  http://opensource.jmglov.net/

**References are available upon request**.