

Michael Barnes

- UNIX/Linux user administration following operating systems: Solaris, Linux, AIX, Digital UNIX, Ultrix and FreeBSD
- Networking protocols include FTP, HTTP, HTTPS, SSH, SMTP, POP, IMAP, and SNMP
- Programming in the following languages C/C++, Perl, PHP, SQL, and other shell and scripting languages.
- Programming tools, standards, and API's used:
 - Databases: DBI, PHP, OCI, PROC, PL/SQL, ODBC, MySQL CAPI
 - Security: PKI, PKCS#11, TLS, SSL, Kerberos, LDAP, X.509, CAPI, PCSC, JavaCard API
 - Web: Perl, C/C++, PHP, SHTML, lex, HTML, templates.
 - Misc development tools: various compilers and linkers, integration C and Fortran, autoconf, lex, yacc, make, cvs, IDEs, Perl modules

College of William & Mary, Williamsburg, VA, Oct 2001-Present

Center For Piezoelectrics by Design (CPD)

- Maintain [CPD](#) cluster at [JLAB](#) (Jefferson Lab). This cluster is a 64 node, 128 processor computational cluster for fundamental materials research with piezoelectric and ferroelectric materials. This cluster utilizes Linux as an operating system on 3 architectures. The compute nodes are either Alpha or Itanium based, and there are 3 smaller 32bit Intel machines for backups, web servers, and a login machine to penetrate JLAB's firewall.
- Support build system's portability for [Opium](#) (Optimized Pseudopotential Interface / Unification Module) and CVS repository.

Computational Science Department

- Maintain 5 student's workstations and two smaller Linux machines
- Maintain departmental web, email, NFS server
- Assist in admiring the [SciClone](#) cluster
- Maintain Oracle database for SciClone
- Developing a poor man's NIS with a MySQL backend.

English Department

- Maintain [Electronic Emissary](#), a PHP driven website and email server. See the [Electronic Emissary FAQ](#) for more information about the site.

General work for IT and the campus in general

- Maintain [linux.wm.edu](#) a [RedHat](#) linux distribution mirror server and automatic patch update service.
- Assist with Linux support for campus.
- Worked with the networking people for an install guide for Linux.

Chemistry Department

- Assist with maintenance for 4 Linux machines which run custom programs, as well as commercial software like [Gaussian](#).

Maximus, Williamsburg, VA, Dec 2001-May 2001

Programmer/Analyst

- Maintenance work of existing products using SmartCards and biometric devices. Also, I have done PHP development (demos and reusable templated questionnaires), and some Java R&D work with ibuttons.

Logicon Inc., Williamsburg, VA, Oct 1999-Dec 2000

Systems Analyst

- Logicon was a government contractor and a subsidiary of Northrup Grumman. There I programmed in C for 16 and 32 bit platforms, developed server side PKI (X.509 certificate authentication, authorization, and issuance), client side and server side SSL/TLS programming, Web development (Perl and PHP), http/https server administration, and FTP server administration under the following platforms: DOS, Win32, and Linux.

Newman Library, Virginia Tech, Blacksburg, VA, 1998-1999

Programmer/Analyst

- UNIX system administration, internet security, Web development/CGI programming, Oracle development, HTTP/HTTPS server administration, and FTP server administration under the following platforms: Linux, Digital Unix, Solaris, and AIX.

Programmer

- Oracle PL/SQL programming and CGI programming in Perl under the following platforms: Solaris, Digital UNIX, and Linux.

Virginia-Maryland Regional College of Veterinary Medicine, Virginia Tech, Blacksburg, VA, 1997-1998

Computer Tech

- PC maintenance, FTP and web development for an animal brainscan device. Internet mail server implementation.

Education

- Graduate Study in Industrial and Systems Engineering/Human Factors Engineering, Virginia Tech, Blacksburg, VA, 1995-1997
- BS in Psychology, Christopher Newport University, Newport News, VA, 1995