

R. MATTHEW EMERSON

4047 E. Smith Rd.  
Medina, OH 44256  
(330) 722-2077  
rme@thoughtstuff.com  
<http://www.thoughtstuff.com/rme/>

**Objective**      A position as a programmer on the Mac OS X platform, either at the Cocoa or Unix level. A position programming for other Unix platforms might also be of interest. Additionally, an opportunity to use Common Lisp would be particularly appealing.

**Experience**      RSIS / NASA GLENN RESEARCH CENTER      Cleveland, OH  
2000–present

Technical staff member of the NASA Desktop Standards and Basic Interoperability Group, and the NASA Agency Security Configuration Standards Group. Serve as an expert in the areas of Unix, Mac OS X, TCP/IP networking, and security.

Funded by the NASA Agency CIO to maintain NASA's software and hardware standards for end-user computing systems. Two technical standards are revised annually, following a well-developed process that requires communication with the various field centers and programs across the agency.

Also helped issue baseline security configuration standards for numerous operating systems and applications based on those produced by the Center for Internet Security (<http://cisecurity.org/>). Wrote NASA's Mac OS X Tiger security configuration from scratch and contributed it to CIS.

Our group also runs the NASA mailing list server [lists.nasa.gov](http://lists.nasa.gov), as well as a few other experimental and production services.

CONSULTANT      Medina, OH  
1999

Freelance Unix and Internet expert.

Provided network, hardware, and software support for Unix-based information services such as mail, DNS, and the web, and advised on routing, security, and dial-up authentication for Suite224 Internet, a division of the Conneaut Telephone Company, located in Conneaut, Ohio.

Provided hardware and software support for a lab of SGI systems running Nichimen and Alias software for the Columbus College of Art and Design, located in Columbus, Ohio.

OHIOONLINE, INC.      Cleveland, OH  
1998–1999

Responsible for design and implementation of Cisco-based multi-homed network. Managed the design and installation of customer Internet links over circuit types including DS3, DS1, and 56K.

Installed and managed Oracle 8. Ported Oracle driver for AOLserver to IRIX and used AOLserver and its embedded tcl interpreter to develop database-backed web sites, including applications for a major university. Configured and used Cybercash for online commerce.

Performed pre- and post-sales SGI system engineering and support as part of OhioOnline's SGI reseller business.

APK NET, LTD. Cleveland, OH  
1996–1997

Served as managing partner of pioneering northeast Ohio Internet service company. Hired and trained an outstanding technical and administrative staff. Established reseller relationship with Sun Microsystems.

Designed, built, and operated Cisco-based network spanning seven Ohio counties. Implemented BGP4 and peered with five neighbors. Deployed Cisco AS5200's with customized TACACS+ authentication software to service dial-up users.

Directed and worked with the technical teams which built and maintained servers (running Solaris and FreeBSD) and networks that supported over 5000 dial-in users, hundreds of web sites, and dozens of dedicated access customers connecting over analog, ISDN, 56K and T1 circuits. Responsible for troubleshooting and solving all complicated technical problems.

PIP.NET PERSONAL INTERNET Medina, OH  
1995

Founded company to provide dial-up Internet access to Medina County residents. Later merged with APK Net, Ltd., and subsequently served as APK's managing partner.

CONSULTANT Medina, OH  
1993–1995

Freelance Unix and IP networking consultant. Built firewall (using the TIS Firewall Toolkit) and provided AIX operating system support for a major electric utility.

OHIO STATE UNIVERSITY Columbus, OH  
1992

Wrote system management tools in Perl for the Computer and Information Science Department's network of over 300 Unix workstations.

IBM Houston, TX  
1991–1992

Provided advanced technical assistance to local IBM support personnel, assisted with customer benchmarks, and made customer calls in exceptional situations.

Also helped port several large software systems to the RS/6000, including a two million line seismic interpretation application (in Fortran and C), and a large health-care management system.

UNIVERSITY OF HOUSTON  
1987–1991

Houston, TX

Worked on optimizing the Perfect Club benchmarks for the IBM 3090. Began adding PostScript and X11 graphics to a set of C++ classes designed for writing finite element method codes. Helped maintain the Mathematics department's network of Sun and IBM workstations and supported the faculty and student users.

Conducted a laboratory section for a class on VAX assembly language programming.

Professional mime/actor in University-run Children's Theatre Festival for three summers. Plays included an adaptation of the *Tortoise and the Hare*, a Babar the Elephant story, and an original script. Also was a member of the Festivals Mime Troupe, which put on an annual show as part of the Drama department's performance schedule in addition to other irregular performances.

THE PRINCETON REVIEW  
1987–1990

Houston, TX

Acted as an instructor and site director for this test preparation company. Taught multiple classes of 10–12 high school students techniques for improving their SAT scores. As a site director, supervised other instructors, resolved problems between students and instructors, and maintained goodwill between the company and the host site.

## Education

OHIO STATE UNIVERSITY  
Graduate studies in Computer and Information Science, 1992.

Columbus, OH

UNIVERSITY OF HOUSTON  
Graduate studies in Computer Science, 1990–1992; B.A. in French, *cum laude*, 1990.

Houston, TX

## Other skills

Experience with a wide range of Unix flavors (Mac OS X, FreeBSD, Solaris, AIX, Linux, etc.); Proficient in C, Objective-C (NeXTSTEP, Cocoa on Mac OS X), Perl; Experience with Common Lisp, PostScript, Mathematica, C++, TeX; Familiar with Python

## Interests

Aviation; Fencing (primarily saber); Music (singing, classical guitar, piano)

## Buzzwords

Mailman, Apache, PostgreSQL, MySQL, LDAP, Kerberos, PHP, Nagios, Postfix, PKI, HTML, CSS, CGI, WebDAV, SSL, Cyrus IMAP, NNTP, Samba, tcpdump, Nessus, Snort

## Professional Organizations

Member, ACM SIGGRAPH