

Ethan Gold

etgold@thaumaturgy.net
917-622-7774

Objective

A position in advanced systems and application development with a research emphasis

Summary

I am a systems, network, and instrumentation oriented software engineer with both proof-of-concept and operational research and development experience. I can work in several areas simultaneously, or focus intensely on a single project. I enjoy learning new fields and methods of application, and exploring new ideas. I have excellent writing skills, and experience instructing students in the classroom and users in real-world operations.

Education

Columbia University, New York, NY: MS Computer Science, 2001
Vassar College, Poughkeepsie, NY: BA Computer Science, 1997,
departmental honors, Math Correlate

Skills

System analysis and design
Object Oriented modeling and design
Software development
Languages: Perl, Java, C (Sun RPC, BSD sockets, OpenGL), C++, Tcl/Tk, Pascal,
Common LISP, SGML, PHP, sh, csh
Operating Systems & Platforms: Linux, SunOS, Solaris, MacOS-10&9, Eclipse,
NetBSD, AIX, DOS/Windows 9x, Windows NT
Data logging and processing systems development and operation
Network, Web server (Apache, NES), and UNIX system administration and
maintenance (Linux, Solaris, SunOS, MacOS)

Experience

Morgan Stanley, Associate Software Engineer , Directory Engineering and Identity Management group

- Develop and maintain the firm-wide LDAP directory infrastructure including related API's and web-based user applications on a small team.
- Infrastructure maintenance and upgrades, vendor patch QA for SunOneDS v.5.x
- New tool development
- Maintenance of multi-sourcing data flow rules for the meta directory using Critical Path's Join Engine
- Designed and implemented a lightweight firm-wide role/rule-based dynamic entitlement engine for fine-grained LDAP entitlements serving 1000+ rules/sec as an embedded module or SOAP service
- Developed a customized-per-user interface front-end for directory self-service based on the above rules engine with 60,000 users, individual and administrative
- Participated in identity management architecture and inter-database information flow design and implementation in a worldwide distributed network environment, including development of SOAP gateways to in-house data validation modules and rule engine
- Currently developing a combination hierarchy and rule-based configuration architecture for coarse-grained account entitlements for identity management

October 2004 – Present

Neuropsychological Assessment Platform (NPAP), Technical Director

- Directing the development with a small team of developers of a prototype computerized modular neuropsychological testing platform which will produce widely available normative data and individual patient assessments.

March 2007–February 2008

HCH Enterprises, Technical Project Management Proposal Consultant

- Research and write technical proposals for online small business development. Work includes client requirements discovery, technical needs analysis, writing RFP's for sub-project outsourcing bids.

July 2005 – January 2006

Columbia University, Senior Systems Programmer/Sysadmin for R/V Maurice Ewing, Office of Marine Affairs

- Operated shipboard data acquisition and analysis systems for scientific experiments in the fields of geophysics, physical oceanography, marine biology
- Maintained and further developed legacy in-house shipboard data acquisition software system.

- Re-architected and implemented reliable, redundant, ship-to-shore satellite data communications system
- Responsible for support of multichannel seismic data acquisition system, multibeam sonar, magnetics, gravimetry, bridge and science navigation systems, display systems, shipboard network and all off-ship data communications
- Performed all required crew and scientist technical support and training
- Performed initial build of on-board Beowulf Linux cluster.
- Participated in new autonomous instrument design and early development
- Redesigned and rewrote the core of the Ewing logging system for portability in a multi-platform/vessel environment aboard the USCG ice breaker Healy.
July 2001 – September 2004

Freelance system development

- Built the vision back-end for Mark Napier's Point-to-Point web art installation commissioned by the Whitney Museum, NYC for the 2001 Data Dynamics exhibit
March 22 – June 10, 2001

Columbia University Computer Science Department, Robotics Group , TA & GRA

- Graduate Research Assistant, and Teaching Assistant under Professor Peter Allen working on the AVENUE mobile robotics platform.
- Implemented two generations of user interfaces for mobile robot control, MSc thesis (Java, Java3D, CORBA)
- Implemented miscellaneous utilities, networking systems, including hardware and software maintenance
- TA for 3D photography, User Interface Design
Spring 1999 – Spring 2001

URLjam Media, Technical Coordinator

- Managed and implemented website backend (Solaris, Linux, Netscape Enterprise Server and Apache administration)
- Implemented Perl/CGI, link/gallery management, ad delivery, polling, automated feed processing
January 2000 to December 2000

Freelance web programmer, UNIX/Web server admin

- Web application developer using perl/CGI, PHP, SSI, SGML and Unix web server administrator
October 1999 to December 1999

Columbia University Computer Science Department , TA

- Teaching Assistant for Steve Feiner's User Interface Design course: "Introduction to the theory and practice of computer user interface design"
- Presented material, graded homework, assisted students, implemented an

electronic homework submission system.

Fall 1998

Los Alamos National Laboratory , GRA software engineer

- Graduate Research Assistant in the Nonproliferation and International Security group for adaptive multisensor facility security
- Worked with various sensors, visualization, data fusion, C, C++, Tcl/Tk, Java.
- Designed and implemented an extensible 2D data visualization system for live networked sensors integrating a variety of sensor types.
- Co-conducted research into live network data fusion from multiple sensors, sensor types.
- Participated in design, debugging, and installation of network reporting systems for the security system sensor suite.
- Implemented live networked data and object distribution backend for production visualization.

June 1997 to August 1998

International Business Machines EDA Dept. E. Fishkill, NY, Intern

- Summer intern programming and bug testing GUI and backend components for Electrical CAD Methodology Enforcement Software using csh, ksh, and C++
- Developed a ksh-based regression testing system for command line data organization tools with HTML report generation.

Summer 1996

Publications

Papers

Georguiev, Allen, Gold, Blaer: *Design, Architecture and Control of a Mobile Site-Modeling Robot* (ICRA2000)

Allen, Stamos, Georguiev, Gold, Blaer: *AVENUE: Automated Site Modeling in Urban Environments* (3DIM2001)

Software and Open Source

AvenueUI: Masters thesis project for mobile robot visualization and control (Peter Allen, advisor)

- Robot Control Application and infrastructure (Java/3D, CORBA, Mobility)
- Thesis text – text available on request
- Users Guide
- Programming Guide

Launcher, Debian and Ubuntu Linux distributions

A one-stop file handling solution for use with any Un*x software that uses file-type to file-handler mappings. This utility is the one point of configuration for programs like Netscape, the dfm filemanager, tkArchive, tkmail, or any other software that uses filetype/handler pairs. Features include multiple type-discovery methods, apache mime.types parsing for extension mapping, and GUI-based disambiguation.

Last release June 1999

Tkchooser2, Debian Linux 2.2

A MacOS-9 chooser-like interface to Appletalk and SMB networks, miscellaneous services, and modularly extensible to other protocols. Lets the user browse zones for various types of network entities, including file servers and postscript printers. Supports remote FS mounting and printing.

Last release November 1999

GEnscript configurator

A standalone version of the Enscript configuration plugin distributed with tkchooser2. Configures .enscriptrc files with a GUI. Contains a patch to the genscript 1.6.1 sources.

Last release December 1998

HPhubtools

An extension to the network management package Tkined. HPhubtools simplifies the management of HP Advance Stack hubs by mapping out machine-hub relationships on the Tkined canvas using SNMP data.

Last release March 1996