

# Ethan Gold

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## 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, architecture, and design  
Object Oriented modeling and design  
Software development  
Languages: Perl, Java, C (Sun RPC, BSD sockets, OpenGL), sh, C++, Tcl/Tk, Pascal,  
Common LISP, SGML, PHP, csh  
Operating Systems & Platforms: Linux, SunOS, Solaris, MacOS, 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*

### Identity Management

The Identity Management team is responsible for enforcing technology provisioning and de-provisioning for internal people throughout all major employment status events.

Activities include:

- Architecture, Design, development, and rollout of an integrated identity management suite based on Sun's Identity Manager software platform
- Build integration, including coordination, source code management, deployment, and rollback
- Third tier engineering support
- Analysis and design of business life-cycle processes
- Design and implementation of entitlement integration
- Development for integration of Sun components with local systems

### Directory Engineering group

The Directory Engineering group is responsible for building and maintaining the tools and infrastructure that distribute internal people data to the firm's internal applications.

Activities include:

- 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 entitlement engine for fine-grained LDAP-based entitlements
- 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

*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.

*Consulting, 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.

*Consulting, July 2005 - January 2006*

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

The R/V Maurice Ewing was the research vessel operated by the Lamont-Doherty Earth Observatory of Columbia University from 1988 to 2005. The ship had a world-wide survey range and operated around the world on scientific expeditions in several fields, including geophysics, physical oceanography, and marine biology. The ship operated roughly 11 months per year, with science staff working on a shore/sea rotation schedule of roughly 3 months at sea followed by three months in the office.

Activities and responsibilities included:

- 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
- Operated shipboard computer systems for scientific data acquisition and subsequent analysis.
- Performed 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*

URLjam Media was a small online teen media company. The company closed in December, 2000 and some of its properties were acquired by Nickelodeon.

Activities and responsibilities included:

- 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 , Graduate Research Assistant software engineer*

- Graduate Research Assistant in the Nonproliferation and International Security group for adaptive multisensor facility security research
- 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*