

Robert G. Ristroph

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Summary

Rob Ristroph has a deep experience in technology and leadership in “hacking” environments.

Relevant Experience

2020 – Present: Diogenes Hackerspace

- Founded after ATX Hackerspace
- Located space, arranged lease, filed incorporation papers,

2015 – 2020: ATX Hackerspace Member, Board Member, Treasurer, and instructor for various classes.

- Handled all money, bookkeeping, and tax filing for 2 years
- Recruited new members continuously
- Designed and taught 3D printer and laser cutter classes
- Organized purchases of several large pieces of equipment more than \$10,000 each, involving group funding or commercial financing
- Handled communication with property management, city officials, law enforcement, and other external entities
- Organized summer classes on robotics and programming for middle school aged children

Various startups projects:

- Ad-hoc radio network text communicator
- Pecan-harvesting robot
- Roommate bill-splitting program

1995: Took Doc Edgerton’s photography lab class at MIT (just after he had passed, unfortunately)

Projects

- Programming in C, C++, Perl, PHP and other languages; Drupal, particularly scaling infrastructure and technical architecture of large projects.
- Building large Drupal websites, including custom module development, and integration with other systems via migrations, feeds, and APIs.
- CDNs and other web caching systems (Cloudflare, Varnish, Memcache)
- Databases / SQL (MySQL, Postgres, SQLite)
- Experience in system administration on several varieties of Unix (mostly Linux, but also Solaris, Irix, FreeBSD).
- Security and setting up intrusion detection systems, setting up web and mail servers, installing and configuring all sorts of software and servers.
- Assembling and testing various types of computers, basic hardware circuit work, Arduino / ESP8266 / PIC chip programming, simple circuits.
- Development of complicated Asterisk telephony systems, integrated into other systems.
- Ethernet based camera security system.

Education

Attended MIT from 1992 to 1996; majored in Computer Science. Did not complete a degree.

Occasional classes of interest since -- a course from the Department of Transportation on bomb detection machines (related to work at Alphatech) and one semester of Russian, numerous technical conferences and training courses.

Work History

Summer of 1994 and 1995 -- intern at Sperry Sun Drilling services in Houston. Worked on electronic sensors placed just above the bit in an oil well; took older TTL boards and implemented them on a single Xilinx FPGA, interfaced to a Motorola HC11; wrote programs to decode data from pressure pulses in the returning mud flow. Other programming in data analysis.

Summer of 1996 -- intern at Brainstorm Technologies, a Cambridge, MA startup. Customer support calls, wrote Visual Basic applications to interface between Microsoft programs and Lotus Notes.

Fall 1996 to Fall of 2000: Alphatech Inc., as Software Engineer. The main project was an automatic target recognition system called MSTAR, which worked on airborne radar images of the ground, and automatically identified tanks, trucks, and jeeps by model. I wrote code in C and C++, maintained project web pages and CVS repositories for collaboration with subcontractors spread around the country, wrote final reports and proposals, traveled to many other contractors sites, maintained a Unix development environment that was spread across dozens of Solaris, Linux, and Irix computers, and maintained a suite of perl scripts that distributed a large number-crunching task across about 60 Linux and Solaris computers. I had smaller roles in other projects, such as an automated video camera license plate reader. Work required a DoD clearance.

Fall of 2000 to 2009: I continued occasional contracting for Alphatech, with travel to numerous customer sites. I also began freelance contracts: system administration, building and configuring machines, programming, web development, various serial port communication hardware devices, for a few local and some remote customers. Some of these projects became the floppy linuxes on my home page, <http://rgr.freeshell.org/flinux>.

For one VoIP call routing customer (international calling cards), I set up a number of linux computers, evaluated RAID cards, modified and maintained an apache/perl/MySQL traffic monitoring and billing application, and did backups.

I have also worked with the Asterisk VoIP system, extending the PHP language by embedding new functions into it written in C/C++, written USB Linux and Windows software to control a thermal label printer, created linux live CDs of various types for various purposes, and done other varied projects.

The idea that I left Alphatech to pursue stagnated, and I did a succession of other failed business products, while continuing freelance work.

I did an extensive contract to rewrite a proprietary, in-house CRM/CMS for a travel industry company from PHP to C and C++ PHP extensions for speed.

2009 - 2012: Four Kitchens - while at Four Kitchens I did a variety of Drupal development mostly focused on large sites with scaling and performance problems, largely in the publication, broadcast, and education industries.

2012 - Did freelance work on large Drupal projects, working on some of the infrastructure on weather.com and comic-con.com (as a sub-contractor to other firms).

July 2012 - Present: Employed at Acquia, a large Drupal company, working as a Technical Architect on a large corporate support forum, large media site, and other projects. Clients and projects included some of the largest Drupal sites – large tech support forums for Fortune 50 Tech Companies, entertainment sites for large studios, some of the largest Federal Government sites. Roles ranged from developer, technical architect, to lead technical architect.

Publications

John Wissinger, Robert Ristroph, Joseph Diemunsch, William Severson, and Eric Freudenthal, MSTAR Extensible Search Engine and Model-Based Inference Toolkit. In Proc. SPIE Vol. 372, pp 554-570, 1999.

Available at <http://rlab.cs.utep.edu/~freudent/homepage/pubs/spie99.pdf>

Numerous DrupalCamp presentations and presented twice at DrupalCon:

<https://austin2014.drupal.org/session/go-continuous-delivery-mastering-and-automating-complex-devops>

<http://2011.badcamp.net/program/lightning-talks/reducing-memory-footprint>

<http://2011.badcamp.net/program/sessions/debugging-techniques-drupal-and-lamp>

<http://drupalcampatlanta.com/session/debugging-techniques-drupal-and-lamp>

<http://drupalcampasheville.com/sessions/debugging-techniques-for-drupal-and-lamp>

http://www.drupalcampasheville.com/sites/default/files/slides/DebuggingTechniques_avl2011.pdf

<http://drupalcampasheville.com/sessions/simple-devops-using-jenkins>

<http://www.drupalcampasheville.com/sites/default/files/slides/JenkinsAsheville.pdf>

<http://dallasdrupal.org/sessions/big-websites>

<http://dallasdrupal.org/sessions/economist-tech-talk>

<http://2011.drupalcampcolorado.org/sessions/debugging-techniques-drupal-and-lamp>

<http://2011.sandcamp.org/sessions/introduction-git-version-control>

<http://2011.sandcamp.org/sessions/debugging-techniques-drupal>

<http://swdrupalsummit.com/sessions/debugging-techniques-drupal>

<http://swdrupalsummit.com/sessions/introduction-git-version-control>

<http://2010.drupalcampaustin.org/sessions/debugging-techniques-drupal-and-other-web-applications>

<http://drupalonthebayou.com/sessions/debugging-techniques-drupal-and-lamp>

<http://drupalonthebayou.com/sessions/simple-devops-using-jenkins>

<https://www.sandcamp.org/simple-devops-using-jenkins>