

Anthony J. Foiani

Programmer.

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Skills

Training, Consulting, Mentoring:

Mentoring, Requirements Collection, Facilitating,
Course Research / Development / Presentation / Training

Languages:

C++ (+ Boost), Java, Perl, C, Shell Scripts, Makefiles, Regular
Expressions, Assembler, SQL

Operating Systems + Platforms:

Linux, U-Boot, Windows, OSX

Data Representation:

XML, JSON, HTML, ASN.1, UTF-8, CSV, Compression +
Archive Formats, LaTeX, PDF

Digital Security:

PKI (X509, CA), Smart Cards, SSH, OpenSSL, CMS, ASN.1

Embedded Development:

Toolchains, Bootloader, Linux Kernel + Userspace, Flash, I2C,
Realtime, Custom Hardware

Programming Techniques:

Threads, C++ RAII, TDD, Optimization, Patterns, Logging

Source Code Management:

git, Subversion, Mercurial, CVS

Networking:

gRPC, TCP/IP, Sockets, HTTP, SSH, NTP, SMTP

Specialties:

Code Remediation, Nuclear Safeguards, Open Source
Licenses, Basic Electronics, Requirements Analysis, SQL
Optimization, Basic German

Experience

YouTube (Google):

2013-2020

- YouTube Trust & Safety SRE
 - Tech Lead and founding member
 - Worked with developers to clear incident backlog
 - Assisted emergency response to COVID-19 situation
- YouTube Search & Discovery SRE
 - Senior member of 24x7 oncall rotation with 5-minute SLA
 - Managed a YouTube-custom instance of Google Search
 - Provisioned services handling over 1G QPS globally
 - Managed huge incidents, including postmortem
 - Rolled out optimizations saving >20% of >1M cores
 - Worked closely with our sister team in Zürich
- Internal Consulting, Educating, Mentoring, and Interviewing
 - Created and taught multiple courses
 - Mentored 10+ junior SREs to full solo oncall capability
 - Recognized company-wide expert on some technologies
 - Interviewed 50+ candidates
 - Maintained and enhanced team culture and cohesion

Foiani LLC:

2009-2013

- Universal Non-Destructive Assay Platform
 - Evolved concepts and requirements
 - Worked in a multinational, multidisciplinary team
 - Implemented and optimized HTML-based UI
 - Implemented realtime data acquisition
 - Designed and implemented security features
 - Created extensive API and user documentation

Yahoo:

2004-2009

- Worldwide Data Distribution System
 - Expanded Y! Music application of memcached
- Mobile Entertainment Provisioning
 - Created multi-tier, multi-client presentation
 - Moved satellite office onto corporate standards
- Backoffice Content Management
 - Planned and executed online reorg of 60TiB
 - Coordinated 10+ member team

Publications

The Perl Journal:

"A Web Spider in One Line?" Fall 1999

Education

New Mexico State University:

Bachelor of Science, 1995
Majors: Computer Science, Mathematics
Minor: German

More Information

Full resumé online at:

<http://foiani.com/anthony/info/resume.html>

Activities

Contributions:

"Programming Tidbits" blog
Code samples and improvement forks on GitHub
Perl samples (1998, still referenced occasionally)

User Groups:

Boulder Linux Users' Group
Northern Colorado Linux Users' Group
San Diego Perl Mongers
Portland Perl Mongers

Mailing Lists:

CrossTool NG
Boost C++ Libraries
OpenSC Smart Card / Crypto Token Library
Linux (Kernel, USB, FS-Dev, Net-Dev, PPC-Dev)