

# DANIEL LO

## DIRECTOR OF ENGINEERING

<http://www.danlo.com/>

### Summary

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I have 15 years of experience working in the Internet field, both in startups PictureTrail, SlideShare, and as part of larger companies (RottenTomatoes.com / IGN) in the LAMP stack. In addition to software engineering, I have strong secondary skills in MySQL Database Administration. I am also a firm believer in business process, transparency, source control management, unit testing, documentation, and architecture. I have a Bachelor of Science in Computer Science.

### Technical Skills

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- Ruby (RoR), PHP, FastCGI, CGI, XML, HTML, Javascript (node.js)
- MySQL, HAProxy, TokyoTyrant, Varnish, Memcached, Redis, Apache, Subversion, Git, Akamai / ESI
- Windows, MacOS X, Linux (Centos), Unix Administration, Shell programming

### Employment

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#### DIRECTOR OF ENGINEERING

NOV. 2011 – CURRENT

Ampush [www.ampush.com](http://www.ampush.com)

- ⌚ Started as Dir. of Eng. for a 3 person team, then took over a 7 person team; covering a diverse set of skills from Junior to Senior engineers
- ⌚ Hands on - Provided technical skills: Architecture, DBA, Programming, Sys-Admin skills
- ⌚ Planned and executed on company goals with minimal supervision
- ⌚ Provided feedback & training to reports
- ⌚ Setup processes for hiring, interviewing and made hiring recommendations; contracted work as necessary
- ⌚ Reviewed projects, managed sprints, and delegated work to reports
- ⌚ Purchased services and kept track of Eng. financial expenditures
- ⌚ Transitioning flagship product from MVP to a scalable and sustainable design

#### SENIOR SOFTWARE ENGINEER/DATABASE ADMINISTRATOR

AUG. 2009 – MAR. 2011

Slideshare [www.slideshare.net](http://www.slideshare.net)

- Software Development
  - Work with remote teams out of US timezones
  - Evaluated several TDD strategies and started unit testing & CI server
  - Overhauling transactional emails to maximize viral loops with A|B testing
  - Moved email handling from local systems to Sendgrid.com
  - Reduced page generation time for the slide deck page (main page of the site) by one-half via code optimizations
  - Converted hadoop processes to use local machines saving money and providing better control and visibility
  - Updated code to help split load among multiple database master and slaves
  - Replaced older code with new code following best practices, improving performance and reliability
  - Helped train intern and other engineers
  - Misc. performance optimizations
- Database Administration
  - Planned out scaling of databases and upgrades
  - Moved database setup from single master, several masters with slaves
  - Identified and provided solutions for replication issues
  - Performance monitoring, indexes
  - Query optimization via (faked) materialized views
- Ops
  - Documented network and data routes
  - Worked with HAProxy, Varnish, identifying caching issues and working on solutions

- o Worked on resolving caching issues in Varnish, increasing hit rate and reducing load on existing servers
- o Helped solve problems that bridge ops and development roles

## DATABASE ADMINISTRATOR / PROGRAMMER

FEB. 2008 – AUG. 2009

**RottenTomatoes.com / IGN / Fox Interactive Media / [rottentomatoes.com](http://rottentomatoes.com)**

- Software Development
  - o Created and managed best practices
    - Unit testing
    - Documented practices, code standards and, code reviews
    - Migrated code base into Subversion
  - o Created new model layer to simplify database access
  - o Implemented Akamai Edge Side Includes (ESI)
    - Greatly improved response times for selected pages
    - Enabled legacy code to easily utilize ESI functionality
  - o Wrote Object Oriented Programming code for new system functionality
  - o Exported data for clients using XML validated with DTD
  - o Maintained legacy code
- Database Administration
  - o Created and documented new database schema for new projects
  - o Documented existing databases schema diagrams and tables
  - o Helped engineering team with query authoring
  - o Optimized SQL queries which improved page response time and system uptime
- System Development
  - o Created deployment process, using subversion
  - o Reduced down time
    - Solved SQL query performance issues
    - Wrote libraries to measure page generation performance and identify errors
    - Performance testing to identify hardware bottlenecks
  - o Diagnostics
    - Developed Memcache and MySQL monitoring tools
    - Provided tools to test configuration, network connections, and authorization
  - o Normalized production and development systems
    - Worked with TechOps to standardized PHP, Pecl Libraries, and MySQL versions across all environments
    - Supervised front end server upgrades; ensured configurations / code systems compatibility

## PRINCIPLE ENGINEER / DATABASE ADMINISTRATOR

2000 – 2007

**PictureTrail Inc. [picturetrail.com](http://picturetrail.com)**

- Planned and executed system expansion through high growth stages
- Web programming in Perl and PHP
  - o Sole programmer (2000 - 2005)
  - o Designed and developed site monitoring tools, gathering statistics and alerting staff
  - o Wrote custom applications for back-end activities for user provided content, uploading, storage, and backups
- DBA
  - o MySQL from 3.x, 4.x, to 5.0.x
  - o Handled backups/recovery, maintenance, repair, replication, and MySQL upgrades
  - o Schema design and documentation
- On-call with 24/7 availability for over 7 years
- Hired and trained staff

## Community Service

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### VOLUNTEER

2007 – 2008

**KindaPerl6 [dev.pugscode.org/browser/v6/v6-KindaPerl6](http://dev.pugscode.org/browser/v6/v6-KindaPerl6)**

- KindaPerl6 is an open source implementation of Perl6
- Provided code maintenance, documentation, clean up, programming in Perl 5

VOLUNTEER

1994 – 2002

**Friends of the Urban Forest** [fuf.net](http://fuf.net)

- Supervised on-site tree planting
- Promoted organization at conventions

## **Education**

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**BACHELOR OF SCIENCE IN COMPUTER SCIENCE**  
**San Francisco State University**