



RoR Administration

2 Day Class

Course Materials

- <https://github.com/nirds/RoRAdmin>
- USB Key

Welcome Introductions

Renée De Voursney

✉ renée@nird.us

🐦 [@NIRDLLC](https://twitter.com/NIRDLLC)

👤 [reneedv](https://www.linkedin.com/in/renee-dv/)

nird.us



Introductions

Name
Experience
Expectations



Hello
my name is

Curriculum

The RoR Ecosystem

- Ruby, Implementations, RubyGems
- Rails, Bundler, Environments, Patterns, Deployment, Exceptions
- Development Tools, RVM, GIT, Pry, Guard, Services, Performance
- Web Server, Application Server, Load Balancing, DB Tier, Job Workers

Schedule



Times	Day 1	Day 2
9am - 10:30	Intro and RVM	Security
Break		
10:45 - 12	Implementations GIT	Deployments
Lunch		
1pm - 2:30	Rails, Exceptions, Workers, Caching	Web and App Servers
Break		
2:45 - 4:30	Development Tools and Monitoring	Load Balancing and Scaling

Learning Goals

- Ruby on Rails Ecosystem
- Architecture Decisions
- Common Patterns (Setups)
- Where to go for help (Resources)



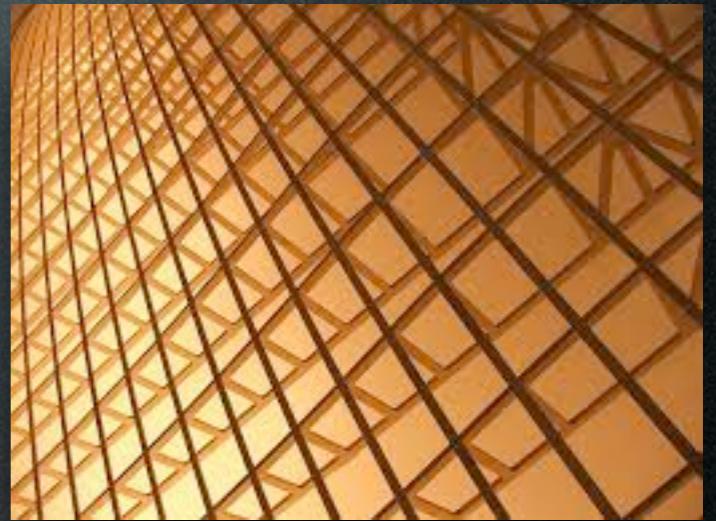
Learning Path

- Experimentation
- Demo As Much as Possible
- Lecture and Questions
- Resources for Finding Answers



Structure

- Explanation (me talking)
- Demonstration (me typing)
- Experimentation (in-class coding) * *
- Questions



* * As Much As Possible

RoR Tools

- RVM / Pik / Jewelry Box / Rb.Env
- Git / Github / Heroku
- Sublime / Vi / RubyMine
- RubyGems / RubyToolbox
- Testing / RSpec / Cucumber
- Terminal / irb / Rails Console

RoR Resources

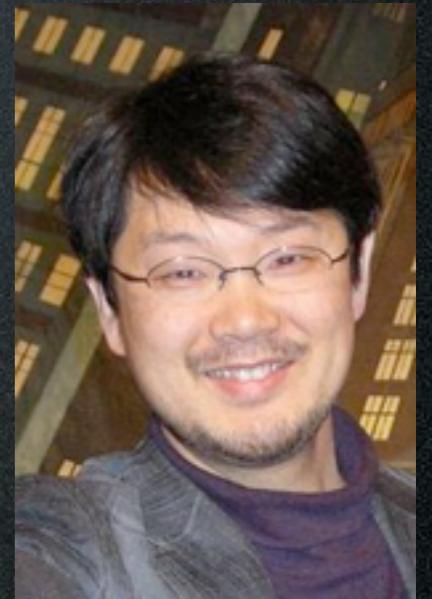
- RailsGuides - guides.rubyonrails.org
- Rails API - api.rubyonrails.org
- RubyDoc - ruby-doc.org
- RailsCasts - railscasts.com
- Github ReadMe
- Ruby ToolBox - www.ruby-toolbox.com



Ruby vs. Rails

- ➊ Ruby is the Language -
 - ➊ developed 1993
 - ➊ Yukihiro Matsumoto “Matz”

- ➋ Rails is the Framework -
 - ➊ developed 2004
 - ➊ David Heinemeier Hansson “DHH”



The Ruby Way

- Written in C
- Influenced by SmallTalk & Pearl
- Ruby is for People
- MINSWAN
- OSS (Open Source Software)
- RubyGems

The Rails Way

- Opinionated Software
- Convention over Configuration
- DRY (Don't Repeat Yourself)
- TDD (Test Driven Development)
- Less Code, More Productivity

Tools

- Command Line
- Ruby / RubyGems
- Rails
- Source Control - Git
- IDE
- Testing, Debugging, Performance

Command Line

- Command Prompt (CLI)
- Mac: Terminal, iTerm, etc...
- Unix: bash, zsh, csh, etc....
- Windows: Command Prompt w/ Ruby on Rails

Ruby

- Ruby -v
 - 1.9.2, 1.9.3, 2.0.0 (1.8.7)
- gem list
- Bundler, Rake, rubygems, etc...

Rails

- Rails -v
- 2.0-3, 3.0-2, 4.0

RVM

Ruby Version Manager

- rvm list
 - rvm use
 - rvm gemset list
- rvm.io



The Ruby Language

- Dynamically Typed
- Interpreted (Standard Lib)
- Runtime Modifications
- Object Oriented
- Blocks and Lambdas
- Regular Expressions

Ruby Versions

- MRI, YARV, Standard Library, C-Ruby
- JRuby - Java
- Rubinius - Pure Ruby
- MagLev - SmallTalk
- MacRuby - Objective-C
- IronRuby - C# (for .Net)

Ruby Implementations

- [http://www.rubyinside.com/ruby-implementation-shootout-a-bright-future-for-ruby-performance-1390.html](https://github.com/cogitator/ruby-implementations/wiki>List-of-Ruby-implementations• <u>Comparisons:</u>• <a href=)
 - <http://benchmarksgame.alioth.debian.org/u64q/benchmark.php?test=all&lang=jruby&id=2&data=u64q>
- Benchmarking:
 - <http://www.ruby-doc.org/stdlib-1.9.3/libdoc/benchmark/rdoc/Benchmark.html>
 - <https://github.com/acangiano/ruby-benchmark-suite>
- Great Blog about Optimizing a New Impl:
 - <http://blog.headius.com/2012/10/so-you-want-to-optimize-ruby.html>

RVM Demo

- ➊ Gemset for Rails Admin
 - ➋ rvm use --create 1.9.3@rails_admin
 - ➋ gem install rails
 - ➋ mkdir rvm_test
 - ➋ cd rvm_test
 - ➋ rvm --rvmrc --create

BREAK!

- 10-15 minutes

Git

- which git
- git --version

Git

- Source Control System
- Timeline, Track Changes
- Branching and Merging
- Code Safety
- Sharing and Deploying



Git Commands

- `git clone / init`
- `git status`
- `git add / rm`
- `git commit`
- `git push`
- `git log`

Git Remotes

- GitHub - www.github.com
- Heroku - www.heroku.com
- Our Server - `git@nird.us:~/RoRAdmin/<your_name>.git`

Git Help

- Git Site - git-scm.com (Setting up a Server)
- Git Immersion - gitimmersion.com
- GitHub Help - help.github.com

Git Demo

- ➊ mkdir git_test
- ➋ cd git_test
- ➌ git init
- ➍ touch test_file.txt
- ➎ git status
- ➏ git add .
- ➐ git commit -m “add a file”
- ➑ git status

Git Demo

- cd ..
- git clone git_test/.git
clone_test
- cd clone_test
- ls
- git remote -v
- touch clone.txt
- git commit -am “add another
file”

Git Hooks

- post-receive hook
- post receive email:
 - [https://github.com/git/git/blob/
master/contrib/hooks/post-receive-
email](https://github.com/git/git/blob/master/contrib/hooks/post-receive-email)

Git Helpers

- Git-Flow:
 - <http://nvie.com/posts/a-successful-git-branching-model/>
 - <https://github.com/nvie/gitflow>
 - <http://danielkummer.github.io/git-flow-cheatsheet/>
- Git Remote Branch (grb gem)

Editor

- Sublime Text 2 / TextMate
- RubyMine
- KomodoEdit
- Eclipse
- Vi / Vim / Emacs

Sublime Text 2

• Command line alias

- Win: doskey subl="C:\Program Files\Sublime Text 2\sublime_text.exe" \$*
- Mac: ln -s "/Applications/Sublime Text 2.app/Contents/SharedSupport/bin/subl" ~/bin/subl
- Linux: sudo ln -s /opt/SublimeText2/sublime_text /usr/bin/subl

• How to Open a folder

Lunch!

• 1 Hour

Rails

- Walk Through
- Gems
- Extensions
- Services

Rails App

- rails new blog
- rails g scaffold topic title
- rails g scaffold post topic_id:integer
user_id:integer content:text

Devise for Authentication

- Gemfile devise
- rails g devise install
- rails g devise user full_name

Rails Composer

- Easy test app

Exceptions

- https://www.ruby-toolbox.com/categories/exception_notification
- AirBrake with Errbit
- Squash.io

Mailers

- Add an email about new posts in a topic

Workers

- Beanstalk (stalker gem and beanstalkd)
- Resque (resque_mailer) (redis)
- Sidekiq (redis)
- delayed_job (db table)

Caching

- http://guides.rubyonrails.org/caching_with_rails.html

DB

- SQL
 - MySQL (RDMS)
 - PostgreSQL (ORDMS)
 - Sqlite
 - MSSQL, Oracle, DB2
- NoSQL
 - MongoDB
 - CouchDB
 - Hadoop

Developer Tools

- [https://www.ruby-toolbox.com/
#Developer_Tools](https://www.ruby-toolbox.com/#Developer_Tools)

Command Line

- Z-Shell
- tmux
- screen
- pry

Staying Current

- <https://gemnasium.com/>
- <https://github.com/gemnasium/gemnasium-gem>
- <http://weblog.rubyonrails.org/>

Performance

- new_relic
- https://www.ruby-toolbox.com/categories/rails_instrumentation

Benchmarking

- [http://guides.rubyonrails.org/
performance_testing.html](http://guides.rubyonrails.org/performance_testing.html)
- [https://github.com/acangiano/ruby-
benchmark-suite](https://github.com/acangiano/ruby-benchmark-suite)

Monitoring

- Monit
- God
- Nagios