

Fred McDavid



Framework Labs
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Profile

Fred McDavid is an adept and versatile engineer, fluent in Python, Ruby and Javascript, comfortable at the Bash prompt and the AWS and Google Cloud consoles, and well-versed in software and systems design.

His most recent project is Priceconomics' Content Tracker, a distributed system for continuous processing of a flow of information from Google Analytics, Facebook, Twitter and others. It produces real-time feedback on our customers' content as it's read and shared so it's impact can be measured and its success duplicated.

Fred listens to podcasts about continuous integration and test-driven development while he cultivates hops, builds fences and rehabs old buildings on his farm in Fort Defiance, Virginia.

He is the founder of Framework Labs (<http://frameworklabs.us>), a software and systems consulting firm.

Skills

Web: Django, Ruby-on-Rails, JQuery, SASS, Bootstrap
Languages: Python, Ruby, Javascript
Version Control: Git (vanilla, GitHub, and GitLab), SVN, CVS
Server automation: Ansible, Puppet, Vagrant, Capistrano
Distributed Computing: Celery, RabbitMQ
Testing: PyTest, RSpec, Cucumber, Gitlab, Jenkins
Databases: MySQL, PostgreSQL, Redis, MemCached
Server Administration: Linux, AWS, Google Cloud, Nginx, HAProxy
Cloud: EC2, S3, Digital Ocean, VirtualBox, VMWare
Telecommuting: Slack, Campfire, Jira, Basecamp, HipChat, Redmine
Other: RVM, VirtualEnv

Education

1996

Radford University - Bachelor's Degree in Computer Science

Experience

- March 2014-Present* **Priceonomics, Developer, Systems Engineer**
- Automated the deployment of company software systems.
 - Key member of team that has delivered a number of distributed systems, written using Python, Django, and Tornado, deployed in AWS and Google Cloud environments, backed by Postgres and Redis.
- July 2012-March 2014* **Lightcastle, LC., Developer**
- Improved existing, large Ruby-on-Rails application with tests, automated deployment, and substitution of fast code for slow.
 - Developed XSLT pipeline for print-to-web processing of medical journals.
- 2007-Present* **Landmetrics, LC., Founder, Developer**
- Developed distributed pipeline for processing real estate data using Ruby, Perl and Postgres
 - Automated system deployment and testing
 - Released open-source projects, Corrigible (<https://github.com/FredAtLandMetrics/corrigible>), which comfortably scales Ansible efforts to multiple servers, and Sadie (<https://github.com/FredAtLandMetrics/sadie>), which minimizes data processing efforts at scale.
- 2005-2007* **Middle River Hosting Technologies, LC., Founder, Systems Administrator**
- Designed a climate-controlled server room, with backup power and redundant network connections.
 - Configured a network monitoring service using Zabbix.
- 2001-2005* **Terralogic, Inc., Lead Developer, Systems Engineer and Administrator.**
- Developed several web-based geographic information systems using ESRI ArcIMS, Coldfusion, Javascript, and MS SQL Server.
 - Designed and implemented web-based emergency operations application for real-time overview of statewide hospital resources using Coldfusion, Javascript, and MS SQL Server.
 - Developed prototype applications using ArcSDE and PostGIS.
- 1999-2001* **Omnet, Inc., Lead Developer, Systems Engineer and Administrator.**
- Developed a system which allowed parents to watch their children in daycare centers via the web using PHP, Javascript, CSS, MySQL.
 - Added web-spidering feature to a ship-to-shore communications service.
 - Helped Harvard and Woods Hole design a data warehouse for a large fish population study.
- 1997-1999* **Technisource, Inc., Systems Administrator**
- Developed tools to aid diagnostic and recovery efforts of technicians in the field.
 - Provided Unix support to Motorola personnel during installations and upgrades.
- 1996-1997* **Net Express Communications, LC, Systems Administrator, Network Engineer.**
- Designed a modem-based internet service provider.
 - Configured and maintained ISP-related systems in a Linux environment: Radius, Sendmail, Apache, BIND.
 - Managed small team of technicians who provided support services to customers.
 - Designed and deployed a DMZ-style, Linux-based firewall.