

# Dev Purkayastha, Web Developer

Cambridge, MA  
dev.purkayastha@gmail.com  
www.ModMetaphor.com  
617-642-4766 (mobile)

## Objective

**Use the best technologies and techniques to build high-performance and high-quality web applications.**

## Knowledge

**Languages:** Ruby, PHP, Javascript, Perl, Java.

**Frameworks:** Rails, Sinatra, jQuery, Prototype.

**Display languages:** XHTML, CSS, XML, JSON, HAML, YAML.

**Testing:** Test-driven development using RSpec, Shoulda, Test::Unit, Mocha, Faker, Cucumber.

**Databases:** MySQL, PostgreSQL. ORMs used to abstract DB-specific details.

- Techniques: normalized table design, query analysis, indexing, materialized views, data integrity via triggers and constraints.

**Deployment:** Apache, Linux, Mongrel, Passenger, Amazon Web Services.

- Automation via capistrano, vlad, custom scripts.

Experience with webapp performance and scalability.

- Strategies: database optimization, reverse proxy caching, data caching, asynchronous processing, messaging queues.

Experience with REST-ful web architecture and web-based backends for mobile applications.

Alumni of Thoughtbot Advanced Rails Training (<http://thoughtbot.com/services/training>)

## Experience

### Freelance Web Developer (2/09 - Current)

- Developed a REST-ful backend for an iPhone application.
- Built systems for automated scraping and storage of web data based on admin inputs.
- Automated deployment of a webapp to dynamically created Amazon EC2 instances.
- Revamped and deployed a legacy Rails webapp for the client's new platform and business model.

### Independent Projects

- Author of **sanitize\_attributes** ([http://github.com/devp/sanitize\\_attributes](http://github.com/devp/sanitize_attributes)), an ActiveRecord plugin for data sanitization, particularly against cross-site scripting attacks
- Course Assistant for CS 50: Introduction to Computer Science (<http://www.cs50.net>) at Harvard College (Fall 2009)
- Teaching Assistant for Ruby on Rails Workshop for Women at the Berkman Center (October 2009)

### Auburn Quad, Web Developer (7/08 - 2/09)

Developed software for online political fundraising. The primary client was **ActBlue** (<http://www.actblue.com>); through the 2008 election cycle, ActBlue raised over \$40 million in grassroots contributions. I joined to bolster development in preparation for the 2008 election.

- Developed an asynchronous cache layer for contribution summaries, removing one of the largest performance bottlenecks.
- Revamped the candidate directory for better faceted search via Solr.
- Led the transition to automated deployment via Capistrano. This required custom deployment recipes due to the app's architecture and security policies.

### Sugarloot, Director of Technology (9/06 - 7/08)

Led the development and launch of **Sugarloot** (<http://www.sugarloot.com>), a social networking site centered around contests and user-generated content. We operated as a subsidiary of a larger entity, but with the autonomy and aggressive pace of a startup.

- Implemented asynchronous video upload and encoding through a third-party vendor, providing users with feedback throughout the process.
- Designed a responsive and scalable web backend through proper database design, memcache-based data caching, and reverse-proxy image caching.
- Recruited the feature development team and implemented better development practices.

### Sconex, Web Developer (2/06 - 9/06)

Developed for Sconex, a social networking startup focused on high-school students. The site was booming in popularity, and needed more developers for feature development and scaling work. Sconex was acquired by Alloy Media and Marketing; members of the team would form the core of Sugarloot.

- Built a feature enabling user-created quizzes and polls. Javascript was used to provide an intuitive user interface. Quizzes were one of the site's most popular features.

### BzzAgent, Web Developer (9/04 - 2/06)

BzzAgent is a word-of-mouth marketing firm. Its webapp was vital for communication between the business and its membership.

### Liquid Machines, Software Developer (6/04 - 8/04)

Liquid Machines develops document-security software for businesses.

## Education

**Harvard University, B.A. in Computer Science (9/00 - 6/04)**