

Steve Zelaznik



GitHub



LinkedIn



Stack Overflow



Portfolio

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Computer Skills

- > Ruby
- > Python
- > PostgreSQL
- > JavaScript
- > jQuery
- > Rails
- > NumPy
- > Bootstrap
- > Backbone
- > Git

Projects

Cosmo-Connect

[Live](#) • [GitHub](#)

- Restful single page app in Backbone for fast updating.
- Composite view pattern to make memory leaks less likely.
- Image processing through Cloudinary API for efficient resizing.
- Fully normalized data, user choices stored as numbers, not strings.
- Postgres triggers keep data consistent, materialized views speed up JSON rendering.
- Follows security best practices: salted hash passwords, parameterized SQL queries.

Frozen-Dictionary

[GitHub](#)

- Python extension in C to create a data type missing from Python standard library.
- Thread-safe and hashable. Lookup times $O(1)$, indistinguishable from builtin dict.
- Complete unit test coverage, more lines for tests than original code.

Chess

[GitHub](#)

- Follows OOP for two people to play chess in Ruby console.
- Mixins reduce the need for repeated code. Classes are loosely coupled.

Professional Experience

AEGON Asset Management

2012 – 2015

Derivatives Analyst

Baltimore, MD

- Researched alternative hedging strategies. Projected savings: \$50 million/year.
- Optimized random seed generation, speeding convergence time by a factor of 30.
- Built audit trail in Python/PostgreSQL for daily hedging, reducing setup time and error rates.

AEGON Group Risk

2009 – 2012

Actuarial Analyst

Baltimore, MD

- Rebuilt interest rate curve engines for use in 31 countries. Went live in 3 weeks.
- Improved the efficiency of VBA tools for financial reporting, shortening 21 days of work to 5.
- Built XML API to manipulate actuarial software from Excel. It became known as the 'Miracle Tool'.

Education

App Academy

2015

Full Stack Training: Ruby, Rails, JavaScript, jQuery, SQL

San Francisco, CA

University of Wisconsin

2009

Bachelor of Science: Economics and Applied Math

Madison, WI