Patrick Brinich-Langlois

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Summary

Senior engineer with a decade of experience rearchitecting critical backend systems for a 50M+ MAU web app. Have led small teams and set coding standards for a 40-person engineering organization; particularly experienced with Ruby and AWS.

Experience

Academia.edu **San Francisco, CA**
Senior Software Engineer *May 2017–present*

- Optimized AWS Aurora PostgreSQL instance types and queries, EC2 instances, EBS drives, and Elasticache clusters, saving over **$100k per month**.
- **Led a team of three engineers** that upgraded primary web application from Rails 4.2 to 6.1 and Ruby 2.3 to 3.2, improving security and maintainability. The app has been in development since 2008 and has 250k lines of Ruby app code and 450 Gemfile dependencies.
- Replaced homegrown batch systems for exporting event data to Redshift with a streaming solution built on AWS Kinesis. The data were critical to business decisions and the new system **reduced latency and data loss by over 90%**.
- Migrated primary app away from an unmaintained, forked library used for multi-database support in Rails, eliminating a class of bugs and simplified future Ruby and Rails upgrades. This required adapting over 3,000 call sites to significant behavioral differences.
- Since 2018, participated in on-call rotation responsible for off-hours uptime and reliability of the primary web app, which serves millions of pages per day.
- Re-architected Stripe and Braintree internal-analytics ETL jobs used to measure the revenue impact of nearly all product decisions from a batch process to a real-time incremental process, eliminating staleness and downtime.
- Independently advocated for the adoption of code conventions. Introduced 250 Ruby linting rules enforced by pre-commit hooks and CI with minimal pushback, enhancing code quality and preventing bugs across the organization.

Software Engineer *Sep 2014–May 2017*

- Consolidated Memcached caching of the most-common UI component from three versions to one by migrating its format from HTML to JSON. This increased the efficiency of caching and made custom styling easier.
- Built a robust Redis-backed system for managing banner and modal displays based on user actions. This framework has been used to display many dozens of distinct UI elements to users and is still used to this very day.
- Implemented aggregation of similar notification messages, decluttering UI and reducing notification fatigue.

Engineering Intern *Jun 2014–Aug 2014*

- Implemented feature for requesting academic papers from authors that was used to share over half a million papers.

Yukon-Kuskokwim Health Corporation **Bethel, AK**
Psychiatric Technician *Jan 2013–Nov 2013*

Education

St. Olaf College **Northfield, MN**
Bachelor of Arts in Music and Psychology *Sep 2007–May 2011*

Skills

Proficient: Ruby, Rails, RSpec

Familiar: AWS, Bash, Postgres, Terraform, Ansible, JavaScript, TypeScript, React, Redis, Python