

PROFILE

Hello! I am a senior software engineer looking for opportunities to positively impact the world. I specialize in designing and building stable, scalable consumer-facing websites and refactoring systems that impact multiple stakeholders. I believe in constantly improving code, infrastructure and processes to make quality products that consumers and engineers can enjoy and rely on.

EXPERIENCE

- **Arcadia (formerly Arcadia Power)** Remote
Staff Engineer *November 2018 - Current*
 - **Systems:** Planned and executed projects to reduce technical debt. Consolidated three adhoc APIs with distinct client types a single permissioned API . Refactored JWT based authentication between internal services and a GraphQL API to go from each issuing tokens independently to a single issuer using public/private keys.
 - **Security:** Migrated sensitive PII from a shared key encryption scheme to using AWS KMS. Improved internal RBAC system to go from 50+ superadmins to four. Audited and incrementally locked down public access to 200+ S3 buckets.
 - **Collaboration:** Worked with product and data engineering teams to automate consumer power brokerage deals, which reduced throughput per customer from weeks to under 48 hours. Paired with junior engineers to learn systems and debug.
- **Tricky Think LLC (Software Consulting)** Washington D.C.
Founder *September 2015 - April 2016, November 2017 - April 2018*
 - **Arcadia Power:** Deployed an AWS based Prometheus + Grafana monitoring system to address production outages, incorporated it with multiple applications and educated the team on dashboards and monitoring. Prototyped next generation utility scrapers that use PDF OCR instead of HTML processing.
 - **Analytics Pipeline:** Built an analytics pipeline for a client using AWS Lambda, Firehose and Redshift to track effectiveness of e-commerce referrals promoted through advertising campaigns. Using this stack, the cost-effectiveness of new campaigns could be analyzed in Tableau graphs in minutes.
 - **Ottoneu Fantasy Sports:** Worked with Ottoneu to refactor their real time auction draft system to increase stability and support four times as many users without additional hardware. We also containerized their development environment using docker-compose to make on-boarding new developers easier.
- **Vox Media** Washington D.C.
Principal Full-Stack Engineer *Jan 2011 - March 2015, April 2016 - April 2017*
 - **Continuous Integration (CI) Infrastructure:** Designed and led the migration to a comprehensive CI ecosystem for 30+ applications using Jenkins, Docker and Chef. Reduced test suite run time from 25 minutes to 10.
 - **Syllabus Live Blog:** Built a live blogging platform backed by Amazon S3 for The Verge that handles 1.2 million unique users during iPhone events. Click to read a blog post with more details.
 - **Ruby and Rails Upgrades:** Upgraded a monolithic Rails app with 81k+ lines of code from Ruby 1.8 and Rails 2.3 to Ruby 2.1 and Rails 3.2 with no downtime. Click to read a blog post with more details.
 - **Image Processing:** Migrated all image processing in the Vox Media CMS to use the open source Thumbor project. Profiled and optimized performance issues in order to support resizing 1.3+ million images a day. Contributed several pull requests written in Python and C back to the main project.

TECHNICAL SKILLS

- **Languages and frameworks:** Ruby with Rails and Sinatra, Node.js with Express and Apollo Engine, Python with Django and Tornado, Bash, Go, PHP
- **Technologies:** AWS (Cloudformation, S3, Cloudfront, Lambda, Firehose, SES, CodePipeline, EC2), Docker (Deployed through EKS and ECS Fargate), Heroku, Varnish, Chef, Ansible, Git, Postgres, MySQL, Redis, Jenkins, Nginx, Elasticsearch, WebPageTest, Thumbor, Grafana, InfluxDB, StatsD

EDUCATION

- **University of Michigan** Ann Arbor, MI
B.S.E. in Computer Science Engineering *2010*