Alex H. **Tharp**

SENIOR FULL-STACK SOFTWARE ENGINEER · OPEN SOURCE CONTRIBUTOR

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Experience

CareerBuilder, LLC   *Remote (Atlanta, GA)*
ENGINEERING LEAD   *Sep. 2015 - Present*

- Formed and led remote team that created a new, **open source CMS** (`github.com/cortex-cms`) designed to be **configurable, extensible, multitenant, modular and plugins-based**, while still being backed by modern technologies such as **Rails, React, Sass, GraphQL, Elasticsearch, Redis and PostgreSQL's JSONB** functionality.

- **Architected** and built foundational features, extensively detailing **implementation plans & proposals via Github Issues** and hosting review & feedback sessions with team, helping to avoid costly mistakes further down the road.

- Flexible **content distribution** model allowed CareerBuilder to **spin down many disparate Wordpress/Drupal installations, saving money** by reducing reliance on expensive consultants and **boosting SEO** performance by deduplicating content.

- **Mentored** team of engineers, organizing **weekly 1-on-1s**, reviewing all pull requests, **leading learning workshops**, providing constructive feedback and goals, planning and pitching team headcount, encouraging developer-contributed architecture proposals and directing all Scrum meetings.

- Built nested, multi-channel/tenant **SaaS infrastructure** to serve diverse needs across the company, bringing all content and marketing teams under a single, **unified platform** that enabled content and configuration sharing with an advanced inheritance model.

- Created content **recommendation & relevancy** infrastructure, piping in-demand articles to job seekers through job listings and industry insight resources, solidifying CareerBuilder as a recruitment authority and increasing user base and **decreasing bounce rate.**

- Designed a Drupal-like *Content Model* system, which allows superadministrators, on the fly, to **"lego" together** and customize various Plugin-provided *Fields*, which can define validation, React, Elasticsearch and GraphQL behavior that can be further customized, per-*Content Model*, by a superadministrator. Allows platform to support incredibly **flexible use cases.**

- Created Shrine-backed plugin providing **full-featured Digital Asset Management**, allowing for dynamic post-processing rules, Cloud Storage & CDN support.

- Using dry-rb, formulated Service/Transaction Layer built around **functional, "Railway-Oriented Programming"** concepts in order to orchestrate higher-level business logic across resources and services, **simplifying unit testing and error handling.**

- Led **user testing** workshops, developing publishing & scheduling system, on-the-fly configurable roles & permissions, workflows and dynamic admin UI architecture in concert with content creators' feedback.

- Built Plugin-provided **Wordpress-like WYSIWYG** editor **"Widget" system**, allowing for **referential integrity** for versioned assets, highly configurable attributes for rich content, and complex **embedded** components such as **media galleries** and video players.

- Authored *Content* relation system, allowing for **complex & configurable semantic links** (i.e. among Articles and Media) between disparate *Content Models*.

- Harnessed **Docker Compose** to create a build process that transformed provisioning, environment setup and deployment into a **turnkey** process, radically **simplifying onboarding and continuous integration/deployment** steps. This also resulted in **normalized environments** across machines, reducing errors and hardening our testing process.

- Built **advanced testing harness**, allowing for core engine and plugins to be **tested independently** and easily via **CircleCI.**

- Created and **authored extensive documentation** portal (`docs.cortexcms.org`) for internal and external use.

- Led initiative and **produced business plan** to **open source** CMS and associated tools, fostering **community involvement and long-term maintenance** of in-house platform.

- Created `hiring.careerbuilder.com`, CareerBuilder's **employer marketing platform**, built with Rails, React, Sass, Redis and Docker on top of Cortex CMS. This new application helped **stabilize our revenue**, migrated purchases and subscriptions to a **brand-new self-service platform**, and **massively boosted SEO** to first-page, **top-five** performance.

- Designed and implemented composable & configurable React- and Cortex-based widget system, **allowing frontend team** to piece together new, **rich product pages in hours** rather than days or weeks.

- Authored numerous, complex React components to **drive user conversion** during discovery & purchase process.

- **Created** and architected on-brand, **responsive, lightweight Sass styling foundation** (similar to Bootstrap) built with **Bourbon** and **Neat** for marketing application and for use **across entire company.**

- Wrote comprehensive suite of **unit & integration tests** using **RSpec, Capybara, Jasmine, Jest & Enzyme**, ensuring platform stability.

- Utilized numerous tools (i.e. New Relic, Sentry, fragment/action/data caching, etc) to measure, scale and **improve site & SEO performance**, writing numerous user stories and defect cards to address issues and technical debt.

- Built Employer Resource Center platform atop Cortex CMS, allowing **relevant marketing content** to be piped into the employer experience during the discovery & purchase process.

- **Took over existing Shopping Cart Platform team**, overseeing resolution of performance, purchase and maintenance issues.

- **Created architecture** and plan for migration for **brownfield Shopping Cart from .NET to Rails/React**, working closely with leadership to develop next-generation purchasing platform for CareerBuilder.

Past Experience

CareerBuilder, LLC (See LinkedIn)

Software Engineer II, Jul. 2013 - Sep. 2015   *Atlanta, Georgia*
Software Engineer I, Aug. 2011 - Jul. 2013   *Atlanta, Georgia*

Soft Solutions, Inc (See LinkedIn)

Software Developer, Jan. 2009 - Aug. 2011   *Atlanta, Georgia*