Alex **Tharp**

SENIOR FULL-STACK SOFTWARE ENGINEER

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Experience

Dribbble
SENIOR SOFTWARE ENGINEER

Remote

Jan. 2019 - Oct. 2020

- Part of small, 3-5 member engineering team, responsible for **building out, scaling and maintaining** the Dribbble experience, which supports **tens of millions of visitors** a month.
- Created the backend for the new **designer search platform**, allowing employers to actively filter and search for **relevant** designers looking for work. Leverages **Elasticsearch** for filtering and relevancy.
- Built the new **freelance project platform**, a marketplace for designers to connect with individuals and employers who need small projects completed.
- Built a significant portion of the new **talent platform**, which intelligently and automatically funnels vetted, relevant candidates to employers, allowing them to passively fill positions.
- Served as **on-call** engineer, rapidly responding to, triaging and resolving issues, **ensuring site reliability** at all times. Became intimately familiar with the entire **11-year-old Rails application**, our **AWS infrastructure** and its processes to ensure effective resolution of site problems.
- In spare time, built our **Docker & Docker Compose** setup for local development and **CI**, simplifying onboarding and normalizing our environments between development and testing.
- Explored new avenues for successful architecture and development, demonstrating effective **N+1 discovery and resolution**, potential **GraphQL** use cases, development over SSH, advanced debugging with RubyMine and VS Code, and more. Occasionally hosted brown bag lunches to cover advanced topics.
- Acted as close **mentor and advocate** for other teammates, making **pairing, code review and deep-dives** a daily affair.
- Built and scaled numerous **API endpoints** to power highly interactive and data-driven Vue components.
- Helped build several **Vue components** as we created new products across the platform.
- Introduced the **ViewComponents** pattern, allowing the backend templating engine to benefit from modern Vue/React/Angular-like patterns.
- Built **Server-Side Rendering** infrastructure to increase crawler and client-side performance for our increasingly Vue-heavy application.
- In spare time, migrated application from Unicorn to **Puma** for local development, addressing several **thread safety** issues as part of an initiative to migrate to Puma on production and **increase performance.**
- Maintained a commitment to quality at all times, **refactoring** the vast majority of modified code and achieving virtually **100% unit test coverage** for the PRs I created - or adding it where it was missing.
- Maintained, refactored and improved **complex purchasing and subscription systems** using service objects and simple permissions classes.
- Created integrations with many other systems, including **Pipedrive, Salesforce** and more.
- Helped build system for paid promotion of uploads on the platform.
- Helped build complex onboarding and offboarding flows.
- Identified and resolved scaling painpoints by way of N+1 identification (using **Mini Profiler and Bullet**), enhanced and aggressive **caching, denormalization of knowledge** when necessary, use of **New Relic** to identify hotspots in Production, adding (and sometimes removing) **indexes**, making use of PostgreSQL **query plans**, and more.
- Built and sent numerous mass mailers to audiences with complex rules, ensuring the right people always received the right newsletters.
- Made heavy use of **feature flags and A/B tests** to ensure smooth rollout of new features and to ensure data always drove our biggest decisions.
- Responsible for large expansion of **admin interface**, always with an eye towards quality and ease-of-use.
- Built features to enhance core "uploads" functionality of site, such as a **complex, rules-based upload permissions system** that's also used heavily in our **Elasticsearch** logic, driving more revenue for one of our biggest products.

CareerBuilder, LLC

Engineering Lead

- 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)*   *Atlanta, Georgia*
SOFTWARE ENGINEER II   *Jul. 2013 - Sep. 2015*
SOFTWARE ENGINEER I   *Aug. 2011 - Jul. 2013*

Soft Solutions, Inc *(See LinkedIn)*   *Atlanta, Georgia*
SOFTWARE DEVELOPER   *Jan. 2009 - Aug. 2011*