PROFESSIONAL EXPERIENCE

2020-PRESENT Third and Grove - Frontend Developer

Currently I am a frontend developer at Third and Grove, a development and design agency. We primarily use PHP as our server side language, and the content management systems Drupal 9/Symfony and Wordpress. Our Drupal sites leverage Acquia and Pantheon (Wordpress is on Pantheon) for deployment. Our local environments are built with Docker, Vagrant, and Lando, and we use local bash scripts and our internal command line tool to easily share data and files between Acquia and Patheon and our local environments. Sharing code is done with GIT, specifically Github using Travis CI to connect to various deployments. We build sites to be translatable from the ground up. A Drupal site that I helped build it and is translated into over 40 languages. We have a Drupal core developer on our staff that shares insights into Drupal's future and various core and security commits.

Our frontend tools are PHP, Twig, Gulp, and Webpack for coupled web applications and Webpack and React/Gatsby for decoupled web applications and of course HTML, JavaScript, and CSS. All our sites follow strict compliance with WCAG. Accessibility has been and still is very important to my work. Client side work has server side requirements. So for many of my projects I need to modify the content management system by writing a module to modify the database or configuration. Coupled Drupal projects require outputting server side templates and modifying the variables that can be accessed by those templates—these are considered front end tasks at our agency. Decoupled projects follow a similar pattern but this happens in a separate code base and a separate deployment through Netlify, Gatsby Cloud, Vercel, and many others.

- Ouster - Lead Frontend/Backend - **Frontend**: Gatsby/React **Backend**: Contentful, Wordpress **Deploy**: Netlify, Pantheon
- Third and Grove - Lead Frontend/Backend - **Frontend**: Gatsby/React **Backend**: Drupal 8 **Deploy**: Netlify/Gatsby Cloud, Pantheon
- King Arthur Baking - Frontend Maintainer - **Frontend**: Twig Templates, Gulp, SCSS, Algolia Instantsearch.js **Backend**: Drupal 9, Algolia **Deploy**: Acquia **CI**: Travis
- Isabella Stewart Gardner Museum - Lead Frontend Maintainer - **Frontend**: Twig Templates, Gulp, Webpack, SCSS **Backend**: Drupal 8 **Deploy**: Acquia **CI**: Travis
- VMware Cloud Health Redesign - **Frontend**: Twig Templates, Gulp, SCSS **Backend**: Drupal 8 **Deploy**: Acquia **CI**: Travis
- Heritage Foundation Homepage redesign - **Frontend**: Twig Templates, Webpack, SCSS, Youtube API **Backend**: Drupal 8 **Deploy**: AWS **CI**: Travis
- San Francisco Public Library - **Frontend**: Twig Templates, Gulp, SCSS **Backend**: Drupal 8 **Deploy**: Pantheon **CI**: Travis
- Dartmouth College Covid 19 student info site - This project was a squarespace site. I built a link between a Google spreadsheet that held data about students and faculty's covid 19 status and produce responsive tables to display the data, updating in real time.
- Backroads - Lead Frontend - **Frontend**: Twig Templates, Gulp, SCSS **Backend**: Drupal 9 **Deploy**: Acquia **CI**: Travis - For backroads.com I also built a PDF generator for their trip itineraries pages. This required building a custom module to generate the PDF urls.

2017-2020 J. Paul Getty Museum and Trust - Software Engineer

I was the Maintainer of Getty Publications open source project Quire. Quire is a modern, multiformat publishing framework designed to create books as authoritative and enduring as print, and as vibrant and feature-rich as the web. They're created without ever signing up for an account, paying a fee, or setting up and maintaining a complicated server. Quire consists of a CLI that does several build processes for the author. It converts markdown files into HTML, EPUB, MOBI and PDF. Quire leverages Nodejs for the CLI, Hugo (Static Site Generator), Bulma, Pandoc (File Converter), Prince XML (web to PDF). Quire adheres to strict accessibility standards of WCAG. Quire also has flexible deployment built in, deploy to your favorite serverless network. Quire is used worldwide by many users at various educational and cultural institutions. Quire works on Mac, Windows, and Linux.

Theme is tested with Cypress/Jest, CLI is tested with Jest. CLI bundled with RollupJS. CircleCI for integration and releases.

Another developer and I rewrote the getty.edu search functionality with Elasticsearch. We built several frontends for the indexes that were needed to support the various types of search that were implemented before the switch. Trying to recreate what Google was doing previously was tricky, but the search's reception was positive and some did not even notice it had changed backends. We also implemented an index for Elastic's Application Performance Monitoring and applied it to some, if not all, of our code bases. Adding real time monitoring of the code allows our developers to drill down on resource costs to make our code fast and cost effective. - Backend: Apache Nutch, Elastic Stack Frontend: Vue, Vuex Testing: Cypress/Jest Integration: CircleCI Deployment: AWS, Netlify

The Bauhaus 100th anniversary site for the Getty Research Institute site was built using the CLI tool I maintained. I worked with our designer to build the site from Figma. Several writers from the Getty Research team wrote the content in markdown files and made use of various custom shortcodes and templates that I created for the Quire's starter theme, as well as custom themes that I created for this site. - Quire CLI, Hugo, Webpack, Bulma, Babel, Deployed to Netlify

I worked on the redesign of Getty's main website with design partner Area17 building components in Nuxt/Vue/Storybook and deployment architecture. - Frontend: Nuxt.Js, GraphQL, Bulma, Styleguide: Storybook.js, Backend: Contentful, Deploy: Netlify

- Internal Project Dashboard to monitor project development and milestones - **Frontend**: Vue, Vuex **Backend**: Wordpress, WPGraphQL **Testing**: Cypress/Jest **Integration**: CircleCI
- Ongoing project of implementing Elastic Stack for internal/external search and APM - **Backend**: Apache Nutch, Elastic Stack **Frontend**: Vue, Vuex **Testing**: Cypress/Jest **Integration**: CircleCI **Deployment**: AWS, Netlify
- Maintainer Getty Publications project Quire. Quire is a command line interface that converts markdown files into HTML, EPUB, MOBI and PDF. Quire leverages Nodejs for the CLI, Hugo (Static Site Generator), Bulma, Pandoc (File Converter), Prince XML (web to PDF). Quire adheres to strict accessibility standards of WCAG. Quire also has flexible deployment built in, deploy to your favorite serverless network. Theme is tested with Cypress/Jest, CLI is tested with Jest. CLI bundled with RollupJS. CircleCI for integration and releases.
- New Docent Website. The docent site was a major refactor since the last site was built 7 years ago. - **Frontend**: Vue, Vuex **Backend**: Wordpress, WPGraphQL **Testing**: Cypress/Jest **Integration**: CircleCI **Deployment**: AWS. The Wordpress site connects to a scheduling system and uses this data to create a custom experience for each user based on their role and schedule. AAM award winner
- Bauhaus 100th Anniversary site for the Getty Research Institute - Quire CLI, Hugo, Webpack, Bulma, Babel, Deployed to Netlify https://www.getty.edu/research/exhibitions_events/exhibitions/bauhaus/new_artist/

2013-2017 Natural History Family of Museums - Lead Digital Developer

As the lead digital developer, I worked on projects that spanned all three institutions. For NHM's main site (nhm.org), I modernized code to fit the demanding needs of web enabled devices, and with every new project, sold my colleagues on the advantages of this modernization even if it wasn't initially an institutional priority. I have led many section-specific updates to the sites. For both institutions I created a video player that worked with the YouTube API for a digital engagement campaign. All three institutions have various departments with web related needs. I make sure that each one has the ability to get what it needs out of the web.For the La Brea Tar Pits and Museum (tarpits.org), I worked with Hello Design to create a mobile theme using the existing Drupal 7 site. I created a custom ticketing solution for the bi-annual Ice Age Hair Ball.

Each institution had a school visits form which was the main source of scheduling schools to visit. This required developing a multi step form that was updatable via the CMS as needs changed during the year. There was an extensive feedback system that built spreadsheet documents and sent emails from the School Visits staff and the school to keep everything organized and up to date.

This was not just for School Visits there were various forms all over the sites that needed to provide custom functionality and processing.

For exhibitions, I developed microsites or pages that would have a special look and feel to promote the new exhibit, while still connecting to the overall brand of the institution. I enjoyed building these since I would be deeply involved in design and I got to show off some of my creativity through coding and design. For our Pterosaur exhibit, I created a rideshare style Google map that followed in real time the arrival of the exhibit from the American Museum of Natural History in New York to NHM in Los Angeles. I created a meme generator for the Extreme Mammals that was fully editable and the image and page could be recalled for sharing.

- Project lead and strategist for all digital properties and projects
- Administrated LAMP stacks on 3 servers (dev, stage, production)
- Managed multiple custom forms with PHP and NodeJS backends, secure processing and notification was always my highest priority.
- Integrated development between datasets from multi backends (MYSQL and MongoDB) and APIs.
- Made use of Google Maps API and JS Canvas API to create an interactive Google map tracking application with custom directional image of a Pterosaur that followed a predetermined path set in KML file that would finish on a given date
- Used Gulp to compile SCSS and JavaScript
- Various JavaScript frontend development (interactive, utility, game)
- All deployments were via dedicated Rackspace servers via Gitlab deploy scripts

2012-2013 The Confluence Group - Creative Director/Web Director

The Confluence is a digital marketing, advertising, and publicity company. I was hired to create a system to handle their massive database of websites, mostly consisting of print, radio, and TV info data. They needed a way to enter new information into the database, a fast faceted search, and ways to output reports.

- Built 3D animations with 3Ds Max, VRAY, and composited in After Effects (https://vimeo.com/40062967)
- Created various promotional sites for our affiliates
- Retouched photos and edited promotional videos
- Maintained Drupal instances for a custom reporting dashboard for clients (Each client had their own private dashboard to view the stats from the advertising campaign)
- For data visualizations for reporting using D3.js and Highcharts.js.
- Deployed via Pantheon

2009-2012 Flaunt Magazine - Digital Design Director

For the website at Flaunt magazine, a 12-year-old fashion magazine, I built a Linux Ubuntu server leveraging the Rackspace Cloud Servers as the box for scalability. This allowed me to leverage multiple ports using Varnish Cache for a highly available apache server that was able to handle 2k to 10k visits a day but frequently went up to 30k to 40k. I was able to achieve this by building the site well. The site would be asset heavy, I used 3 Drupal modules – imagecache, cdn, advance aggregation; these modules when properly adjusted can reduce a page load to almost nothing.

The design's main strategy was to maximize the many beautiful images that were in the magazine alongside the proactive writing and supplemental video content. Another part of the design that was important to create was an administrative environment for data entry that worked well so that when I was done working on the site it would be able to be maintained and furthered by another admin down the line.

- Controlled the flow of all visual media within Flaunt Magazine's web and print media pipeline.

- Maintained a high performance Rackspace cloud server that ran a Drupal instance with CloudFront CDN
- Created layout, advertising, cover, and special insert design
- Maintained and facilitated all technology at the office, including, large-format printers, web and LAN servers, cameras, computers, and software
- Organized and edited a large range of media types, from streaming video to 3D models and high-resolution graphics

FREELANCE

Pills Universe NFT project

- **Backend**: OpenSea web3 apis
- **Frontend**: NextJS, SWR, Typescript, Three.js
- **Deploy**: Vercel

I work with a group of developers and creators that make the Pills Universe NFTs. I built the interface of the most recent project as a way to re-mint a pill into a new one for a new avatar NFT system. When developing a web3 project using TypeScript becomes extremely valuable to know that the transaction or login process accepts the correct values. Numbers need to make use of the BigNumber types, which uses numbers in a more math driven way, but lets you know that you are using the right one. The data is added with useContext, which adds global state and with Typescript added the dispatch functions work every time.

I also maintain the story mode site, which runs on Jekyll and uses Netlify CMS also deployed on Vercel. I can't say enough positive things about Netlify CMS, a great choice for a simple open source free CMS that just works. We're moving this site over to NextJS and Typescript currently.

Mamalagels

- **Backend**: Wordpress, WPGraphQL, Custom Express Endpoints
- **Frontend**: NextJS, SWR, Typescript, payment gateway with Stripe
- **Deploy**: Vercel, Digital Ocean
- **Lighthouse**: 100 Performance 100 Accessibility 100 Best Practices 100 SEO

Mamalagels was built to sell custom products in a specific geolocation with a custom payment gateway. This site really shows how NextJS, SWR, Typescript work to connect content from Wordpress, payment from Stripe, and Node.JS/Express functions to generate stable HTML receipts that are accessible via a subdomain, and email correspondence via sendmail API. The Node.JS/Express functions run on the same server as the Wordpress site. Making use of these technologies together are able to create a fast accessible site, with a way to make purchases. This is my sister's company, and she only wanted to sell in certain areas, so I built a zip code checking system. We created purchase pathway forms. The key with this site was increasing access by increasing performance.

ACLU

- Built Drupal 7 module to make new optional frontend styles for content
- These features were created for the Southern California ACLU but were pushed to the national sites

Adult Swim

- Built Promotional website for new show 'Black Jesus'
- The website made use of the Javascript Canvas API, Youtube API and CSS3 to showcase the promo video in a 'heavenly' way. The scene contained animated clouds and god sized hands.

Cat Bounce

- Rewrote high traffic Flash website to JavaScript using Matter JS and Webpack 4.
- The site receives several hundreds of thousands visits a month
- 2019 Webby Award Winner

PERSONAL PROJECTS

Websites & Art

- https://twitter-checker.vercel.app - **Frontend:** NextJS and SWR **APIs:** Twitter, Bot or Not
- https://gifs.naeluh.vercel.app - **Frontend:** NextJS and SWR **APIs:** Giphy
- https://the--law--says--vote.vercel.app - **Frontend:** NextJS and SWR - for this site I used Leaflet and OpenStreetMaps for the map, opencage for location, then I parsed the XML on these pages https://www.fvap.gov/xml-api to get the voting data
- gifpaint.in
- yourimage.io

EDUCATION

Otis College of Art and Design Los Angeles, California 2002-06

SKILLS

Creative, philosophical thinking based in logical and algorithmic coding experience and know-how to create unique solutions for all design and development problems. Expert knowledge of creative and development software in Linux, Windows and Mac.

Languages

- JavaScript
- TypeScript
- Rust
- MYSQL
- PHP
- Python
- Ruby on Rails
- HTML
- CSS
- XML
- Git
- Apache
- Nginx
- Erlang
- C#
- C
- JAVA
- GO
- BASH/ZSH
- Arduino
- GraphQL
- Lua
- Mongo

CMS, Frameworks and Libraries

- Drupal
- Composer
- Drush
- Docker
- Lando
- Vagrant
- Zend
- HighchartsJS
- JQuery
- Django
- Angular
- Vue
- Nuxt
- VueX
- React
- Redux
- Larvel
- NodeJS
- Backbone
- Underscore
- Backdrop
- OpenCV
- Caffe
- Tensorflow
- Wordpress
- D3.js
- Hugo
- Gatsby
- NextJS
- Astro
- MDX
- Jekyll
- Vuepress
- Matter.js
- Three.js
- socket.io
- Pandoc
- NPM
- Prince XML
- Apache Nutch

- Elastic Stack
- Webpack
- Gulp
- Grunt
- Rollup.js
- Varnish
- SVN
- Git
- Deno
- Pika
- Jest
- Tape
- Cypress
- CircleCI
- Jenkins
- Travis
- XState

AWARDS

- 2021 22nd annual Media & Technology MUSE Awards Juror for category 2020 Response
- 2020 The American Alliance of Museums MUSE Award Winner for The Bauhaus 100th Anniversary site for the Getty Research Institute
- 2019 The American Alliance of Museums MUSE Award Winner for The Getty Docent Site
- 2019 Webby Award catergory Weird for cat-bounce.com
- Certificate of achievement from Mayor Antonio Villaraigosa for revitalization project
- Folio Ozzie Award
- Best Overall Design, Consumer Silver Award - Flaunt Magazine April, 2010
- Best Cover, Consumer Under 250,000 Circulation Bronze Award - Flaunt Magazine: The Census Issue April, 2010