

Nicholas Hemsley

Computer Scientist, Data Scientist

Experience

Fluid Notion Systems

01 March 2020 - 01 December 2021

- I worked on a Fluid simulation of breaking waves, and visualization software for the results of these simulations. Please see the [project page](#) for details

Skills: Rust | Bevy | AWS | Terraform | 3d Programming | Big Data

Itomic Web Design & App Development

01 August 2019 - 01 January 2020

- Maintaining a Vuejs & Laravel web app, with a Mysql database. Elastic Search functionality.
- API Integration
 - Google Places
 - Google Accounts Reseller
 - cPanel/WHM

Skills: PHP | Ruby | Google API | Laravel | Vue | Lando | Devops | Google Places | Google API | Geolocation | Mysql | Postgres | PostGIS | Linux Administration | cPanel | Elastic Search

Freo Guitar Tuition

01 February 2018

I augmented their customer invoice tracking system to send out emails to clients when invoices are due.

- Encapsulate the business logic for communicating with customers regarding invoicing.
- Airtable integration with ruby application to send out invoices when due.

I am currently working on a booking system for Fremantle Guitar, which integrates with their unique needs (guardians, dependants, term based subscriptions).

- Heirarchical user system with dependancies between customers. Based on Devise.
- Google Drive Integration for uploading training videos (managing user access)

Skills: Ruby | Ruby On Rails | Postgres | PostGIS | Mysql | Google API | Google Drive

Cryptocurrency Exchange Arbitrage

01 January 2018 - 01 April 2018

Analyze opportunities presented by exchange rate differences between online cryptocurrency exchanges. Finding round-trip percentage gains by buying and selling on various exchanges.

- Ruby On Rails
- Javascript charting front end
- Data Aggregatin from multiple exchanges (using coingecko/cryptoexchange gem)

Skills: Ruby | Ruby On Rails | Postgres | Bitcoin | Ethereum | Timeseries Data

Media On Mars

01 January 2017 - 01 June 2018

Setting up and troubleshooting up Website Hosting

- DNS
- Email
- Hosting providers

Websites

- Integrating photoshop designs into wordpress sites
- Front end javascript functionality
- Bespoke wordpress plugin development

Skills: Javascript | PHP | Ruby

ABC Wall Removers

01 January 2016 - 01 April 2016

I developed a quoting website for ABC Wall Removers to create estimates for jobs. This was generally accessed via an web app & on iPad. Once the estimate was created, the client could then send the estimate details across to his invoice2go invoicing app, which takes care of generating a PDF invoice for clients. This was developed using emberjs, a rails backend which served json, and the bootstrap framework for the design.

Skills: Ruby | Ruby On Rails | Mysql | Ember JS | Javascript

Integrated Natural Systems

01 August 2015

Created a static website hosted on amazon s3. The client wanted a clean, minimal look for their website to complement with the images & gallery featuring photos of nature.

Skills: Ruby | HTML | Javascript | Amazon | Amazon S3

Phone Control Australia

01 February 2007 - 01 June 2009

Web Programming – ASP.NET, C#, SQL Database. I worked on an Single page web app utilizing javascript charts for reporting on phone system usage in organisations. This was before SPA apps were a thing. Internet Explorer, memory leaks, css hacks. Interesting project, I learnt alot about javascript and its dynamic nature (wrt. functions & binding) through this project.

Skills: ASP.net | C# | Postgres | Javascript | JQuery

House Of Snowball

01 February 2006 - 01 June
2006

I developed an ecommerce shop for houseofsnowball.com. This was created using rails, and integrated with Stripe for the payment processing. Created using haml, sass & javascript. It is a fairly traditional Rails application.

Skills: Ruby | Ruby On Rails | Stripe | Postgres

Itomic Web Design & App Development

01 January 2003 - 01 June
2005

Full stack web developer with Itomic. Mostly with their in-house CMS. Many and varied roles as came up running a hosting service. Generally I implemented bespoke solutions for clients using PHP & Mysql as the back end.

Skills: PHP | Mysql | DNS | Email | Linux Administration | cPanel

Referees

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