Nathan Dennis

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After working in a wide range of roles, from baking, call center management, gym instructing, 999 call handling to customer service, I'm taking the steps to move into a career that I'm truly passionate about.

A couple of years ago, I took the decision to start with a Udemy web development bootcamp course that taught the fundamentals of HTML, CSS and Javascript, along with practical applications of technologies like REST APIs, MongoDB, ExpressJS and NodeJS.

This year I've also introduced myself to some great front-end tools, such as VueJS and Svelte. I've completed courses on Udemy that focus on JavaScript, MySQL exclusively, as well as a couple of full stack development bootcamps by Colt Steele and Angela Yu.

Since then, with the encouragement from some friends who are senior engineers in esteemed companies like Microsoft and DigitalOcean, I've developed a keen interest in full stack development, and am now learning about the things that truly blow my mind, like Golang, Docker, Kubernetes, Linux, Redis and distributed systems.

PROJECTS

DigitalOcean Mobile
Personal | April 2020 - current

https://github.com/NathanDennis/Digital-Ocean-Mobile

An unofficial mobile companion app for DigitalOcean, to check your balance, billing history, droplet statuses etc. I started building this project with encouragement from my friend who is a senior engineer at DigitalOcean, after expressing interest in building something to learn about their API.

Built solely by myself so far, I've learned a lot about Ionic Framework and VueJS, building projects down to mobile versions with Android Studio, as well as fetching and manipulating data from a robust API.

After lots of challenges with CORS errors, I raised a support ticket with DigitalOcean, who weren't aware of the issues. They allowed me to QA with them privately to ultimately result in their endpoints being fixed, allowing the app to be overall much faster and responsive with data fetching in general, eliminating the need for a middleware server I wrote to make the API calls for me. I intend to Open Source this project and eventually release it to the community for use and testing.

Coronavirus Updates
Personal | March 2020

https://coronavirusupdates.netlify.app

When the pandemic struck, and the lockdown was enforced, I felt that there were too many conflicting news articles being spread from far too many unreliable sources. Over the course of one very long night, and about 10-12 hours of solid coding, I built a one page site with VueJS and NewsAPI, that fetches all of the day's most popular articles from trusted sources around the world.

This project taught me a lot about interacting with public APIs and formatting the returned data into usable pieces in VueJS components, as well as some problem solving with event emitters and conditional logic in VueJS.

Source code:
- App: https://github.com/NathanDennis/coronavirus-news-articles
- Server: https://github.com/NathanDennis/coronavirus-news-server

Discord Coronavirus Stats Bot
Personal | April 2020

https://github.com/NathanDennis/Discord-Coronavirus-Stats

As a personal challenge, having never built a bot before, and as a regular user of the Discord chat client, I again took my drive to feel useful during lockdown as a reason to pursue some interests in back-end programming.

This one was quite the challenge, as I'd never really worked making bots before, but over the course of a few very productive nights, I had a great first working version. Similar to the coronavirus updates articles website I built, this app made use of Cron jobs to schedule the update of a data array every hour, as my free API call limit wouldn't allow a new call to be made every time a command was issued to the bot.

Utilizing Discord's own Discord.js JavaScript library, I faced and overcame challenges related to string parsing and filtering, listeners to listen for user commands and return a formatted response and creating more clear documentation for my own project README files so that anyone viewing the project has a clear overview of what the project does.

SKILLS

Technical

NodeJS/Express

Javascript/VueJS

REST APIs

SQL

MongoDB

HTML/CSS

Git

Linux

Personal

Time management

Teamwork

Problem solving

Technically driven with a positive attitude

LEARNING

Golang

Docker

Kubernetes

Redis

NGINX

Svelte

Distributed Systems

Cluster Sim

https://github.com/NathanDennis/cluster-sim

After hearing about load balancing, a friend told me about NGINX. At the time, I had a couple of Raspberry Pi 4s hanging around and asked if there would be a way, for me to take incoming HTTP traffic, and split the load between the two devices and then send the expected responses back. He said this is exactly what load balancing is, so I got to work.

With his help, I wrote a very simple Go server with a single endpoint that would return the IP of the incoming request as a response in the console.

I then learned a little about setting up and configuring NGINX on a headless Linux OS, and learned more about Docker by using an image called 'wrk', an HTTP benchmarking tool which I used to send tens of thousands of requests to that single endpoint, so that my NGINX configuration could split the requests between each Raspberry Pi, before logging the response.

This project is what really got me interested in the barebones, under the hood inner workings of back end development, and sparked a real curiosity to learn about Docker, Linux, Kubernetes and Golang.

Discord Reminder Bot

https://github.com/NathanDennis/discord-reminder-bot

Once I'd built one bot, I had to find out more about them. After racking my brains for ideas, I decided to try something I knew had already been done, but challenged myself to complete it without looking at the source code of other bots, to see if I could break the challenges down and come up with my own solutions. I came up with the idea of a bot that you could set a reminder with, and have it message you directly when the time came to... remind you to do that thing.

The bot takes a command, converts the text into a timestamp and responds to the user via direct message at the requested reminder time. Reminders are stored in an SQLite database and checked every few minutes to check for outstanding reminders. When the check runs, if there are reminders to send, they are sent out to every user, then deleted to free up space in the database.

This one really challenged my basic knowledge on SQL, formatting and storing data, as well as retrieving data to pass into an application, before formatting and sending a customized message to the user.

WORK EXPERIENCE

In 2009, I started working as a cleaner at a gym. While not the most glamorous of jobs, I worked hard and ended up volunteering as a gym instructor to gain experience and pursue an interest in personal training.

From there I spent 9 months training and successfully making it through the selection process for the British Army Infantry. Unfortunately a heavy knee injury shortly before making my way to the Catterick camp cut this dream short and I was sent home the next day.

In 2011, 10 miserable weeks on unemployment benefits later, I found myself in a job making a range of breads from scratch in one of Tesco's new scratch bakeries. This is where my love for seeing the end result of my work come to fruition really started.

My next job in 2013, was working in a government call center, where I took calls on behalf of HM Prison Service, Crown Prosecution Service, The Royal Parks and Natural England. Here I was also a 999 emergency operator for National Rail Service, where all 999 calls from the railways across England, Wales and Scotland were routed. I was quickly promoted into a team lead position, which turned into an out of hours management role, where I looked after the agents, and took on the responsibilities of disaster management and taking call escalations.

Since then I've worked as a debt recovery negotiator for a car credit hire company from 2014 - 2015, settling claims with car insurance providers and preparing lengthy cases for litigation, I've been a team lead at AO managing a call center full of agents in 2016, a customer service representative for OverclockersUK from 2016-2018 and an insurance broker for a car & business insurance company in 2019.

I currently work as a sales representative for OverclockersUK, for whom I've previously worked. I was recently offered a temporary contract to start working with them again in August 2020, and was incredibly grateful to accept given the current climate, after struggling with unemployment since December 2019.

INTERESTS

Travel

Building mechanical keyboards

Cooking

Guitar and vocal covers

WeRateDogs

VOLUNTEERING

Gym instructor / class leader
2009-2011

While working as a cleaner, I volunteered my time as a gym instructor and lead cardio classes for large groups of members, as the gym was severely understaffed at the time

EDUCATION

Ruskin Sports College
2002-2007

7x GCSEs grades A-C