David Arrowsmith

Junior Web Developer

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Introduction

Following a successful career as a senior research chemist I'm seeking my first full-time position as a junior web developer.

I initially coded in JavaScript as a hobbyist. As my skills developed I came to realise that this would make a fantastic career. I started an intensive self-training regime to progress my skills from coding JavaScript functions to developing full-stack apps using contemporary technologies.

My career as a scientist endowed me with numerous complementary skills such as project design and management, collaboration, technical communication and self-tuition.

Projects

1. TinyCarList   August 2020

Mock car listings app. Full-stack.

- Created an Express back-end with full CRUD capabilities, error handling and a Jest test suite.
- Used Docker and Postman to mock the database and test its performance prior to deployment on Heroku.
- Developed a responsive front-end in React.
- Displays and filters listings from the database.
- Includes a submission form with password authorization.

GitHub: github.com/gummicode/tiny-car-list-app
github.com/gummicode/tiny-car-list-api

Live: gummicode.github.io/tiny-car-list-app/#/

2. Queer Family Tea   Current

Update a news site for a monthly social. Collaborative project.

- Met with organisers to determine requirements and draft the site.
- Currently updating the repository.
- Replacing old class-based components with new functional components with React hooks.
- Replacing bulma-components-react with bespoke styled-components.

GitHub: github.com/ian-antking/q-family-dinner

Live: queerfamilytea.com/#/

Technologies

Front-End:
React
JavaScript
HTML
CSS

Back-End:
Express
Sequelize
MongoDB
Mongoose
MySQL

Environments:
Node.JS

Hosting:
GitHub Pages
Heroku
Vercel

Testing:
React Testing Library
Jest
Chai
Mocha
Supertest

Tools:
Docker
Postman
MySQL Workbench
Robo 3T
VS Code

Other:
3D Printing
Raspberry Pi
Affinity Designer

3. NASA Image Search   July 2020

Search engine for NASA's image library.

- React app with styled-components.
- Performs state-based searches of a NASA image library using image metadata.
- Parses images from results data and renders these procedurally.
- Handles API errors and returns appropriate alerts in the UI.
- Includes a Jest test suite.

GitHub: github.com/gummicode/nasa-image-search

Live: gummicode.github.io/nasa-image-search/

4. SpaceFrens   May 2020

Graphical representation of people currently in space.

- Designed the visual display and created assets in Affinity Designer.
- Scripted an animated display using JavaScript and CSS.
- Used Fetch to retrieve data from the open-notify.org API regarding people currently in space. Updated the display to graphically render this information.
- Created a proxy API to allow the browser to receive HTTP data from open-notify.org.

GitHub: github.com/gummicode/spacefrens

Live: spacefrens.herokuapp.com/

Employment History

Senior Research & Development Chemist
Sherwin-Williams, April 2018 - Present

Managed continuous parallel projects. Developed next-generation coatings. Performed client demos.

Research & Development Technician
Sherwin-Williams, Feb 2018 - April 2018

Prepared intumescent coating samples. Performed furnace trials to test fireproofing capabilities.

Senior Research & Development Chemist
Tradebe, June 2014 - August 2016

Developed original chemical recycling processes. Proved methods in lab trials. Facilitated industrial scale-up.

Research & Development Technician
Tradebe, May 2011 - June 2014

Analysed diverse chemical waste streams to identify viable recovery routes. Facilitated lab activities.

Education

Chemistry MSc by Research
University of Manchester, 2016 - 2017

Chemistry BSc (2:1 Hons.)
University of Liverpool, 2006 - 2010