stackoverflow

Whymarrh Whitby

Senior Software Developer

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EXPERIENCE

Senior Software Developer

MetaMask

Jan 2018 → Current (2 years, 4 months)

javascript | typescript | reactjs | redux | mocha | enzyme | git | ethereum

I currently work on building MetaMask with a remote team distributed all around the globe. MetaMask is a browser extension that allows you to browse Ethereum-enabled websites and has 1M+ users across its platforms.

Roles & responsibilities:

- Front-end application development using React, Redux, and redux-thunks
  - Designing components based on designs and wireframes in Figma/InVision
  - API integration and state management using Redux
  - Browser extension development and support
    - MetaMask is a browser extension for Chrome, Firefox, Edge, and Opera
- Mentor newer developers on testing, version control, and JavaScript/TypeScript
- Help maintain a medium-size open source project (3.5k stars, 150+ contributors)
  - Respond to user feedback and triage issues from the community
  - Review code from the community and help contributors land their patches
- Help maintain JavaScript/TypeScript packages under the MetaMask organization

MetaMask is an open source project. You can see all my issues and PRs for the extension on GitHub.

Senior Software Developer

Iceberg Finder

Dec 2017 → Current (2 years, 5 months)

javascript | typescript | reactjs | redux | rxjs | jest | express | git

I helped build & currently maintain Newfoundland and Labrador's award-winning Iceberg Finder website for the Department of Tourism, Culture, Industry and Innovation (press release) with a small team of developers. Iceberg Finder won multiple awards at the 2018 Adrian Awards. The site is a React front-end with a HTTP API for geospatial queries.

Roles & responsibilities:

- Front-end application development using React, Redux, and redux-observable/rxjs
  - Designing components based on a UI design system in Sketch
  - API integration and state management using Redux and rxjs
  - Help with/coordinate feature prioritization to meet seasonal deadlines
- Backend development of a REST-style HTTP API for processing, storing, and querying geospatial data
  - Designing RESTful endpoints to return geospatial data
- Mentor newer developers on testing, version control, and JavaScript
- Manage the hosting & scaling for the site
  - Provisioned and maintained an object-storage server used for storing raw iceberg observations
  - Automated and provisioned hosting for the API and website on DigitalOcean using Terraform

The site received a bit of press coverage at the time, including the BBC and the CBC calling it "snazzy".

Awards:

- *Gold* - 2019 ICE Awards for Apps/Mobile - IcebergFinder.com
- *Gold* - 2019 ICE Awards for Website - IcebergFinder.com
- *Silver* - 2019 Marketing Awards Digital - Creative Use of Technology
- *Gold* - Digital Marketing at the 2018 HSMAI Adrian Awards Competition
- *Platinum* - Digital Campaign at the 2018 HSMAI Adrian Awards Competition

Software Developer

Bluedrop Learning Networks

Dec 2016 → Jan 2018 (1 year, 2 months)

javascript | reactjs | redux | rxjs | feathersjs | postgresql | git | docker | linux | amazon-s3

I worked on the team's pre-release SkillsPass initiative (myskillspass.com) and the first release of the Bluedrop Q, a form workflow backend. I jumped back and forth between front-end development, backend development, and helping maintain a small handful of internal libraries and tools the team used (e.g. Bash scripts, internal npm packages).

Roles & responsibilities:

- Front-end application development using React, Redux, and redux-observable/rxjs
  - Designed React components based on a UI design and sometimes low-fi wireframes
  - API integration and state management using Redux and rxjs
- Backend development of application servers and a RESTful API using FeathersJS
  - Designed API endpoints to adhere to the team's existing structure
  - Updated and improved endpoint designs as new requirements became available

Software Developer

Amec Foster Wheeler plc

May 2016 → Dec 2016 (8 months)

python | git | docker | linux | amazon-ec2 | amazon-s3

I worked in Met-Ocean Services at Amec Foster Wheeler, where my focus was on configuring and improving the team's operational forecast tooling and surrounding workflows.

Roles & responsibilities:

- Mentored colleagues on unit testing and Git
- Configured and updated the team's existing forecast tooling using Python, Docker, a bit of Ansible, and shell scripts
- Built command-line tools for the developers using Python 3
- Ubuntu and Fedora Linux server configuration and administration (we used Amazon Web Services at the time)

Lead Software Developer

Eastern Edge Robotics

Jul 2015 → Jun 2016 (1 year)

java | python | git | gradle | ansible | linux | raspberry-pi

I was the lead software developer for the 2016 Eastern Edge Robotics Remotely Operated Vehicle (ROV) team, building the control software for the vehicle. The software team was 5 people, including myself, and all the team's disciplines together was 21 people.

Roles & responsibilities:

- Lead a team of software developers, planned and delegated tasks
- Wrote control software for an underwater ROV in Java with a bit of Kotlin
  - The vehicle control software ran on three onboard Raspberry Pi single-board computers
  - The surface control software ran on an Ubuntu topside control module written with JavaFX
  - Interfaced with electronics using serial communication
- Linux system configuration and administration using Ansible

Achievements:

- 1st overall at the 2016 MATE International ROV Competition
  - *International champions* - Memorial University Gazette

Software Developer

Amec Foster Wheeler plc

Apr 2014 → Aug 2015 (1 year, 5 months)

c# | javascript | dojo | python | powershell | arcgis | git | windows | amazon-ec2 | amazon-s3

I was part of a small development team building a geospatial and data visualization application using the Esri ArcGIS API for JavaScript. The application was developed as an ice surveillance system that incorporated risk and confidence assessments, remote sensing technology, and ice forecasting. The application made heavy use of the Esri ArcGIS platform, including ArcGIS for Server and its associated APIs (Python + ArcPy, C# + ArcObjects, and JavaScript + JS API). We used both on-premise and virtual servers (AWS EC2) and I automated a small amount of the infrastructure required for the project (Windows Server automation) as well as some of our development environment.

Roles & responsibilities:

- Helped build a web-based mapping application
- Developed data processing scripts and programs—I helped to write the initial version of the data processing pipeline we used to download, parse, and store geospatial data
- Introduced unit and functional testing and a testing culture to the team
- Introduced a testing environment using Jenkins CI, Intern, and a small amount of Selenium
- Introduced the team to build tools and automation via Gulp and PowerShell
- Assisted colleagues with learning unit testing, version control/Git, and JavaScript

OPEN SOURCE

RxBroadcast

Jan 2016 → Current (4 years, 4 months) 539 commits

java | rx-java | reactive-programming | mutation-testing | distributed-system | docker

A small distributed event library written in Java

I built and maintain a small distributed event library for the JVM. It grew out the control software written for an underwater robotics project that I was working on. The library supports UDP broadcasts as a transport and allows users to configure different ordering requirements atop UDP (e.g. single-source FIFO using Lamport timestamps or causal order).

RxBroadcast provides a set of classes to build systems in an event-driven style. It has a small API with the fundamental operations needed to send and receive events both on a single machine and across multiple networked machines. It is built using Reactive Extensions (RxJava), which offers a proven implementation of observable sequences.

Version 2.0 was was an interesting milestone for the project, as it focused on getting the library's test coverage to new levels. v2.0 included multiple levels of integration tests, good unit test coverage, and 99% mutation test coverage. This project and the robotics project it was a part of are the roots of my interest in distributed systems.

RESEARCH PAPERS

Sunken History of Grand Lake

Dec 2017

arcgis

Published in *The Journal of Ocean Technology*, Vol. 12, No. 4, 2017

> Lake Maps NL is a group of young professionals who share a passion for technology and exploration. The group has taken a collective interest in Grand Lake: a large lake on the island of Newfoundland with a unique history and landscape. A dam was built on this lake in the 1920s and the resulting 11 metre rise in water level drastically altered the terrain both above and below the surface. Lake Maps NL set out to create a map of this lake in an attempt to discover the original shoreline and unveil some of the history preserved below the floodwaters.

STACK OVERFLOW

102 — How to undo duplicated Git commits after doing a rebase

Jun 2015

57 — What HTTP response headers are required?

Aug 2014

2 — What is acceptable to add to a JSON response?

Jul 2014