F1LT3R Alistair MacDonald - UI Engineer, Web & Mobile

linkedin.com/in/f1lt3r   f1lt3r.io   github.com/f1lt3r   npmjs.org/f1lt3r

I have been developing web sites and mobile applications for twenty years. I experiment with low-power computing, build mechanical keyboards, and contribute to Open Source software. I use monorepos, Behavior Driven Development, and Dev-Ops to build software that scales across multiple engineering teams and products. I was a Technical Lead for Mozilla web graphics project, I chaired the Audio Working Group at The W3C, worked on data visualization for Newsweek, helped develop a Node.js platform for Redbull Studios and wrote an article for the .NET magazine about JavaScript animation.

Senior UI Engineer - isee.ai - *Jan 2020 – Present*

Developing user interfaces and DevOps intrastructure for autonomous vehicles. Using Modular-JavaScript, Python, React, Redux, Deck.gl and Web Components, AWS S3, CloudFront. Responsiblities include user experience design and software architecture for two public facing products and one internal testing products (mobile and desktop).

Senior Software Architect - Houghton Mifflin Harcourt - *Mar 2018 – Nov 2019*

Designing software patterns for reuse across multiple teams. Technical leadership and development of web applications for measuring student growth in English and Math. Forming cross-site working-group with UI engineers reach early consensus through collaboration and innovation. Working collaboratively with legal, social media, engineers and corporate leadership to implement engineering blog for the company. Providing internal training on JavaScript, React, etc. Working with Git, multi-product mono-repository, Yarn workspaces, React, Node.js, Google Material UI, WCAG.

Technology Lead - Reclaim (Startup) - *Jan 2017 – Feb 2018*

Developed Hybrid mobile app with Ionic for patients to track their health. Creating custom Angular components with SVG, Canvas, touch events and Cordova native services. Integration of third-party health-care & financial APIs to integrate health, clinical, drug and medical data. Implementing AWS Cognito, S2, Gateway to mobile application.

Lead Developer - Radial Analytics - *Dec 2014 – Dec 2016*

Using AngularJS, Protractor, LESS, Gulp, NodeJS, I developed a web app deployed on the hospital floor. It has been exciting to work within HIPAA constraints to create a modern light-weight web-app that helped provide decision support to clinicians.

JavaScript Architect
AI Squared - *May 2013 – Dec 2014*

Co-Founder, Software Architect
Bocoup - *Dec 2009 – May 2013*

Audio Working Group Chair
W3C - *Jul 2010 – Aug 2012*

Open Web Technical Lead
Mozilla - *Sep 2008 – Oct 2010*

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Open Source Projects

React Workspaces :) PLAYGROUND!

Zero-config Create-React-App Monorepos w/ Yarn Workspaces, Lerna, React Storybook. Read more: git.io/JfF8j

MARKSERV

Serve markdown as html (GitHub style), index directories, live-reload as you edit.

github.com/markserv/markserv

Blog Posts & Articles

Roll Your Own Math - Sine & Cosine

For years I have been using JavaScript's Math.sin() and Math.cos() to create games, animations and interactive graphs. But how do Sine and Cosine work? I had to know…

f1lt3r.io/roll-your-own-math-sine-cosine

The Unstated React Service Pattern

This guide demonstrates a React Pattern for sharing global state with dependency injection, reducing prop-drilling without requiring Redux, MobX, Apollo Link State, etc.

bit.ly/2YcdzBF

Past Speaking Engagements

2019-06-16: React MonoRepos - React Meetup, Boston
2018-05-05: React Context API - Frontend Meetup at HMH, Boston
2018-06-01: ESNext & React Training Course - Five day course at HMH, Boston
2012-10-15: Web Audio - Wakanday JavaScript Conference, Boston
2011-08-17: Blender to WebGL - HTML5 Game Development Meetup, Boston
2011-06-17: WebGL Demo Workshop - [AT]Party Demoscene Event, Harvard
2011-01-20: Web Audio APIs - HTML5 Game Development Meetup, Boston
2010-11-08: Processing.js Interactive Workshop - EDUI Conference, Virginia
2010-11-08: Intro to Processing.js - EDUI Conference, Virginia
2010-10-26: JS Game Audio - Level Up Game Jam, CDOT, University of York, Canada
2010-10-16: Firefox4 Audio Data API - Workshop - Music Hack Day, Boston
2010-09-17: Demo-tools with Web-Technology - Bocoup Loft, Boston
2010-08-19: Processing.js New Features & Tutorial - Harvard College, Boston
2010-07-08: The Future of Web Audio - Mozilla Summit 2010, Whistler, Canada
2010-05-12: The Future of Web Audio - Bocoup Loft, Boston
2010-04-28: Audio Data API - WWW2010, North Carolina
2010-04-17: WebGL Demo Overload - JSConf, DC
2010-04-02: Keynote JavaScript Motion Graphics - Motion Graphics Festival, MA
2010-03-17: UI Mechanics - Bocoup Loft, Boston
2009-11-21: Processing.js Workshop x2 - Music Hack Day, Boston
2009-10-30: Creating an Animated Twitter Widget - FSOSS Conf., Toronto, Canada
2009-09-11: A Crash Course in HTML5 - Microsoft NERD, Boston
2009-04-30: The Death of Flash - BarCamp4 MIT, Boston