

Braden Marshall

SOFTWARE ENGINEER · FULL-STACK WEB ENGINEER

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Summary

Full-stack engineer passionate about solving **meaningful problems** with speed by leveraging **open-source** technologies on top of a concrete foundation of **Computer Science** principles, made possible through a **pragmatic** mindset and **Lean** methodology.

Hobbies include: bodybuilding, entrepreneurship, and *NIX customisation.

Experience



Theodo UK

London, England

WEB AND MOBILE SOFTWARE ENGINEER

Aug. 2017–PRESENT

- Built and launched 10+ web and mobile apps (React, React Native, Redux, Node, AWS) using Agile methods (Lean, Scrum and DevOps), including work on e-commerce platforms, data visualisations, machine learning algorithms and chatbots.
- Lead and completed the first project migration to Typescript at Theodo. This experiment grew our team's velocity from 7.5 to 15 in 4 weeks. Delivered company-wide trainings on Typescript and the migration process that led to company-wide adoption of Typescript for all new projects.
- Contributed several features and fixes to our internal project generator, most notable of which was a React app hosted on AWS S3, CloudFront and Certificate Manager (via Terraform).



Theodo FR

Paris, France

WEB AND MOBILE SOFTWARE ENGINEER

Oct. 2017 - Jan. 2018

- Built the *session replay* tool for Content Square, one of the world's fastest growing *digital experience platforms*.



Self-Employed

Horsham, England

VIDEO-GAME MOD DEVELOPER

Sep. 2013 - Jan. 2016

- Developed 11 "plug-and-play" addons, for the popular video-game Garry's Mod.
- Marketed and sold over 1,000 units to server administrators (exposing my addons to 100,000s of players).
- Collaborated with clients to design and build *bespoke addons* for their own communities.
- Provided support to many clients, with varying levels of technical expertise.



Cardiff University

Cardiff, Wales

CUROP RESEARCH ENGINEER

Aug. 2015 - Sep. 2016

- Co-authored a paper on Argumentation Theory (an AI field) as part of Cardiff Undergraduate Research Opportunities Programme (CUROP).
- Paper was accepted for inclusion in the International Conference on Computational Models of Argument (COMMA) 2018.
- For more, see: <http://disco.cs.cf.ac.uk/> and <http://ebooks.iospress.nl/publication/50220>

Education



Cardiff University

Cardiff, Wales

B.Sc. IN COMPUTER SCIENCE

Sep. 2014 - Jun. 2017

- Achieved First-class with honours (~85% marks achieved).
- Final-year modules include: Artificial Intelligence, Graphics, High-Performance Computing & Multimedia.
- Dissertation: a modern browser-based multiplayer implementation of the arcade game Tron; complete with a sophisticated AI powering "computer" controlled opponents.



The College of Richard Collyer

Horsham, England

GCE ADVANCED LEVELS (A-LEVELS)

Sep. 2012 - Jun. 2014

- Computing (A*)
- Information Technology BTEC Level 3 (Distinction*, Distinction*)
- Mathematics (B)

Honors

2014

Collyer's Academic Progress, nominated by Computing teacher for exceptional performance.

Side Projects

Icarus: a tiling windows manager, featuring gaps, created for MacOS. Implemented, following the *object-oriented* paradigm, using a *binary space partitioning tree* plus custom algorithms for efficient querying and layout computations. Can manage other GUIs, e.g. the DOM of a web-page.

TWERK: an administrative addon Garry's Mod, a popular video-game, featuring: a sophisticated GUI; user groups with permissions; powerful user commands; as well as rich plugin and theme systems.

Audio Synthesiser: GUI application built with MATLAB implementing several *audio-signal processing* algorithms (including *spectrogram editing*, *phase vocoder*, *ADSR volume shaping*, *wah-wah*, *flanger* etc). Effect pipeline allows for some powerful creations.

Skills

Programming

JavaScript, TypeScript, Python, Lua, Java, MATLAB, SQL, C++.

Frontend

React, Redux, Styled Components, React Native, D3.js, HTML5 & CSS3.

Backend

Node (w/ Express + Knex, Loopback etc), Django.

DevOps

AWS, Docker, Circle CI, Linux, Firebase.

Other

Git, Test-Driven Development (w/ Jest, Cypress, ESLint etc), Algorithms & Data Structures.