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.

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), ffor billion dollar companies and Series A startups alike, 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 drove the migration process that led to Theodo adopting Typescript for all new projects.
- Contributed several fixes and features to our internal project generator, most notable of which would spawn a React app hosted on AWS S3 utilising CloudFront and Certificate Manager for SSL (infrastructure as code via Terraform).
- Onboarded and trained, in both project tech-stack and methodology, ~10 junior and ~10 experienced developers.
- Delivered successful projects in as little as five weeks; acceleration has been made possible by an ability to build trust within the team - promoting the free and active challenge of the product backlog.

Theodo France   *Paris, France*
Web and Mobile Software Engineer   *Oct. 2017 - Jan. 2018*

- Travelled and lived in Paris, within one of Theodo's sister startups, and 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**)
- Received the Collyer's Academic Progress award following nomination from 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.

Hobbies

Bodybuilding, entrepreneurship, and *NIX customisation.