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*
FULL-STACK ENGINEER · *Aug. 2017–PRESENT*

- Built 10+ web and mobile applications for start-ups and global corporations alike.
- Vast spectrum of projects, ranging from e-commerce platforms and data visualisation dashboards to implementing machine learning algorithms and chatbots.
- Championing the bespoke Theodo *agile methodology* (based on Lean, Scrum and DevOps) to deliver revenue-generating MVPs.
- Worked with many development teams, giving me exposure to different technologies, methodologies and project scopes.

Theodo FR · *Paris, France*
FULL-STACK ENGINEER · *Oct. 2017 - Jan. 2018*

- Lived and worked in Paris alongside another startup within the M33 ecosystem.
- Built a high-caliber *session replay tool* for one of the world's fastest growing *digital experience platforms*.

Cardiff University · *Cardiff, Wales*
CUROP RESEARCH ENGINEER · *Sep. 2014 - Jun. 2017*

- Designed and developed an *open-source* implementation demonstrating the latest techniques emerging from *Argumentation Theory* - a hot-topic field within Artificial Intelligence.
- Paper accepted for inclusion in the *International Conference on Computational Models of Argument (COMMA) 2018*.
- Project undertook single handedly under the supervision of two Computer Science professors.

Self-Employed · *Horsham, England*
VIDEO-GAME MOD DEVELOPER · *Sep. 2013 - Sep. 2014*

- 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.

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

2017 — **Achieved First-class with honours**, graduated with ~85% marks achieved.

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. Full *unit-test* coverage helps to minimise regressions.

TWERK: An administrative addon for Garry's Mod 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 & Courses

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 etc), Django.
DevOps	AWS, Docker, Circle CI, Linux, Firebase.
Other	Git, TDD (Jest + Cypress for Web), Algorithms & Data Structures.