# **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

Theodo WEB AND MOBILE SOFTWARE ENGINEER

Aug. 2017-PRESENT

- Designed and built 10+ web and mobile applications for start-ups and global corporations alike.
- Worked on a vast spectrum of projects, ranging from e-commerce platforms and data visualisation dashboards to implementing machine learning algorithms and chatbots.
- Championed the Theodo flavour of *agile methodology* (based on Lean, Scrum and DevOps) to deliver revenue-generating MVPs.
- Collaborated with many different development teams, gaining myself exposure to a plethora of technologies, methodologies and project scopes.



#### Theodo FR

Paris, France

Theodo WEB AND MOBILE SOFTWARE ENGINEER

Oct. 2017 - Jan. 2018

• Built a high-caliber session replay tool for one of the world's fastest growing digital experience platforms.



## **Cardiff University**

Cardiff, Wales

CARDYD CUROP RESEARCH ENGINEER

Sep. 2014 - Jun. 2017

- Partook in the Cardiff Undergraduate Research Opportunities Programme (CUROP); a grant to take part in a summer placement within any of their Academic Schools.
- Designed and developed an *open-source* implementation demonstrating the latest techniques emerging from *Argumentation Theory* a hot-topic field within Artificial Intelligence.
- Co-authored a paper, which 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
- 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 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

Sep. 2012 - Jun. 2014

- COLLYERS GCE ADVANCED LEVELS (A-LEVELS)

  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.