# Adam Cornforth

Lancaster University https://adamcornforth.me https://github.com/adamcornforth

## Work Experience

## Jan **Full Stack Developer**, *Tui Interactive Media*, (Full Remote).

- 2021-Current Worked on e2e encrypted iPad / Android app for succession planning (Cordova).
  - Launched multi-region Vue SPA app for fintech startup with CMS, prerendering, Cloudflare, CI & CD.
  - Built multi-CPU architecture Docker builds (amd64 / arm64) on Github Actions for M1 Mac support.
  - Deployed (and set up) AWS Elastic Beanstalk and ECS Fargate in production, with CI/CD pipelines.
  - $\circ~{\rm AWS},\,{\rm ECS}$  (Fargate), Cloudfront, PHP7, Symfony 5, PHPUnit, Vue, Docker.

### Aug 2020 - Senior PHP Developer, Street Group, Manchester.

- Dec 2020 Worked in 2-week (agile) sprints, delivering story-pointed features and bugfixes.
  - Developed CRM features for estate agents / vendors / buyers, and built APIs for a mobile app.
  - SMS/Email notifications, React components (algolia search, calendars, bookings), PHPUnit, Behat.
  - PHP, Laravel, React, PHPUnit, BDD (Behat), AWS, Elastic Beanstalk.

### Jan Web Developer, Tui Interactive Media, London.

- 2017-June  $\,$   $\circ\,$  Worked on Naive Bayes text classification for a news / RSS ingester.
  - $2020~\circ$  Developed design-pattern based CMS backend for an Informal Learning platform with Elasticsearch text and attachment search.
    - Added continuous integration (CircleCI / BItbucket Pipelines) to projects and used TDD with PHPUnit.
    - $\circ\,$  Deployed with docker-compose and AWS (EC2, RDS, ES, SES, etc) in production.
    - PHP, Symfony 4, PHPUnit, Go, VueJS, Webpack, Docker (docker-compose), AWS, CircleCI.
- July 2015 Web Developer,  $\mathit{Mojofuel},$  Manchester.
  - Dec 2016 Helped redesign & build the corporate season ticket processing system for a train operating company.
    - Consumed "BRFares" train fares API and developed bespoke TfL/Merseytravel/TfWM Network West Midlands/TfGM Metrolink/SPT fares API implementations for use on the ticket application form.
      - $\circ~{\rm PHP/mySQL},$  Git, Vagrant, Jenkins, DeployHQ, Selenium, PHPUnit, Grunt.

#### Summer Web Developer, Mojofuel, Manchester, (Internship).

- 2014~  $\circ~$  Created a "Digital Media Centre" CMS for ALDI (for press releases / media).
  - Performed maintenance and updates on a British train operating company's website.
  - ${\tt o}$  Development of a website for Rhug Estate  ${\tt https://www.rhug.co.uk/}$

## 2013-2014 Web Developer, The Paper Cup Company, Clitheroe.

 $\circ$  Design & development of an order tracking system for (>100) orders per month for bespoke printed cups – including creation of design briefs, upload and approval of artwork, order tracking, and payment gateway.

#### $2013\mathchar`abla 2013\mathchar`abla 2013\mathch$

• Prototyped a web-based mobile bidding app (using jQuery Mobile) which allowed administrators to create bids, set customer's in-store credit, etc., and allowed users to place bids (with their winning bids awarding them in-store credit). The schema was later re-used in the final iPhone application.

## ${\small Summer} \quad {\small \textbf{Assistant Web Designer}, Workhouse Marketing, Ribchester, (Summer Placement).}$

- 2011 Responsible for splicing, creating, and testing HTML emails that would render in nearly every email client (tested with Litmus).
  - $\circ~$  Developed sites using Wordpress and modifying back-end PHP code on existing sites for the agency.

## **Education**

- 2012–2015 Lancaster University, Software Engineering (BSc Hons). - First Class Honours (1st), IET Accredited
- 2010–2012 St. Mary's College, Blackburn.
  - A-Level: Computing (A), Graphic Design (A), Media (B)
    AS-Level: Photography (A) Critical Thinking (B), Mountain Biking Level 2 NVQ
- 2005-2010 Ribblesdale High School, Clitheroe.  $7A/A^*$ , 7B

## • Computer skills

OS	Mac OS, Linux/Unix, Windows	Code	PHP, C, Java, Python, SQL
Type	$\ensuremath{\ensuremath{\mathbb{E}}}\xspace{\ensuremath{\mathbb{E}}}\ens$	Misc	HTML/CSS, JavaScript, jQuery Processing
Software	Sublime Text, Matlab, Photoshop	Frameworks	Laravel, PyroCMS, Symfony, CodeIgniter

## Academic Achievements

#### Final Year Smart Environment Toolkit, Grade: A, Languages: Java, PHP.

Developed a portable, customisable toolkit that can be used to transform living and working environments into smart spaces that are aware of interactions and physical changes around them. The Smart Environment Toolkit (SET) utilised **embedded**, **programmable devices** (Java Sun SPOTs) to achieve its goal, and was configurable using a **web front-end** built using the Laravel 4 PHP framework and jQuery.

o Project Features Video - https://youtu.be/Tc1kxDZV-o8

#### Recursive Descent Parser, Grade: A, Language: Java.

Produced a top-down parser program built from a set of mutually recursive procedures, with each procedure being responsible for a production in a language's grammar. Used to verify if any supplied input is grammatically correct in terms of the language the program was built to recognise.

#### Distributed Auctioning System, Grade: A, Language: Java.

Designed and implemented a simple distributed auctioning system using Java RMI. Involved clients making requests to a remote server in order to browse, create, and bid on auctions. Implemented appropriate cryptographic authentication (public-key cryptography to negotiate the sharing of a secret symmetric key, and a symmetric key to encrypt all requests) and user access control. Further, the system was made dependable through passive replication, implemented using JGroups.

#### Second Year Traceroute Implementation, Grade: A, Language: C.

Developed my own version of the trace route tool that finds all the intermediate nodes up to a destination in C. Practiced my skills in sending RAW Sockets and ICMP packet requests.

#### Recursive Minesweeper Cascading Algorithm, Grade: A, Language: Java.

Developed a complex algorithm that mimics the "cascading" effect that occurs when you click on a square in minesweeper that has no bombs on it or on the squares surrounding it. Practiced my OOP principles and recursive algorithm definitions in this exercise.

#### 6-Letter Cipher Python Assignment, Grade: A, Language: Python.

Python assignment where I had to accept user input to allow encoding and decoding of a message encrypted using the 6-letter cipher. I made extensive use of list comprehension, python list generators and OOP in this exercise.

#### First Year Rainfall Analysis, Grade: A, Language: Java.

Java Application created that parses a weather station's rainfall data and presents it using charts & tables in an easy to use and understand user interface.

On the Web Website: https://adamcornforth.me Github: https://github.com/adamcornforth LinkedIn: https://www.linkedin.com/pub/adam-cornforth/59/247/251