

## Experience

- NOV 2021– **Full Stack Developer, BNY Mellon, London.**
- Front office developer role working in TypeScript and Java to build and maintain applications central to the running of the FX sales and trading platform.
  - Migration of legacy codebase from JavaScript to TypeScript to build a new frontend for the FX Trading Platforms.
  - Liaise with stakeholders in locations around the world in order to resolve issues and implement features.
- SEP **Developer, Space48, Manchester.**
- 2019–SEP 2021
- Worked closely with external clients to deliver integration apps and micro-services to meet their business requirements, running demos and conducting end-to-end tests.
  - Integrated SaaS platforms with the use of cloud architecture (Microsoft Azure/Google Cloud).
- JUN–JUL **Teaching Intern, Loreto College/St Peter's RC, Manchester.**
- 2019
- Acted as a teaching assistant in high school classes of mixed ability whilst also putting together and leading a Maths Roadshow type session (problem solving type problems, fixed amount of time to try and solve).

## Education

- 2015–2019 **Mathematics MMath(Hons), University of Manchester, UK, 1<sup>st</sup> Class.**
- 2014–2015 **Foundation Year (Science and Engineering), University of Manchester, UK, 84%.**

## Notable Projects

- 2022 **App Migration, BNY Mellon, Internal Trade Enrichment Tool.**
- Rebuilt an internal tool's frontend codebase in Angular after AngularJS (1.x) EOL, as part of a team with members in the UK, India and the US.
  - Joined midway through the project and quickly became a contributing member of the team, optimising existing build processes and the developer experience.
  - Documented the existing functionality of the app and noted parts of the architecture (both frontend and backend) which could be improved upon.
- 2020–2021 **App Development, Space48, Styla CMS Shopify App.**
- Worked in a team of 3 to architect and develop a Shopify app - from receiving client requirements to developing a build available to Shopify merchants. App is responsible for syncing pages periodically from a CMS platform to a Shopify store, allowing those pages to be viewable on the store without human interaction
  - Use NextJS (a React framework) to build a full stack app, which is deployed to GCP as an App engine project, using Firestore as a database.
  - Tackled both frontend and backend aspects of the app. Frontend required the development of a single page UI which lists Styla pages and their sync status. Backend required the development of the periodic sync process.
- 2019–2020 **Website Re-platform, Space48, Ordnance Survey Map Shop.**
- Major project in terms of size and scope, re-platforming a client's website from Magento to BigCommerce.
  - Personally built 5(out of a total 6) of the integration micro-services using Microsoft Azure, including Single Sign-On (SSO) integration and subscription services.
  - Took a leading role in the development of the subscription service, taking responsibility for architectural design, writing of test plans, user/support documentation and client demos.
  - Used teamwork and presentation skills in a project team spanning three organisations, with demos attended by up to 30 stakeholders.
- 2018–2019 **Regular Graphs and Constructions of Cages, University of Manchester, Master's Thesis (Grade: 85%).**
- Researched techniques for constructing graphs with specific properties, finding the minimum number of vertices needed for a graph with these properties using the algebraic software package Magma.
  - Utilised a graph-theoretic approach, describing algorithms from an abstract algebra perspective.
- 2018 **Sorting Algorithms and the Game of Life, University of Manchester, 4th Year Module (Grade: 85%).**
- Wrote a program to simulate John Conway's *Game of Life* in C++, making extensive use of sorting functions and recursion, as well as the core object-oriented features of classes such as inheritance and abstraction.

2017 **Connect 4**, *University of Manchester*, 2nd Year Module (Grade: 92%).

- o Wrote a command line Connect 4 game in Python, allowing the user to play against another human, the computer, or run a game between two computer opponents.

## Skills

Programming Languages TypeScript/JavaScript, Python, Bash/Shell, Java, C++, PHP, HTML, Matlab (basic), R (basic)

Frameworks **Frontend**: React, Angular, NextJS; **Backend**: Express, Koa, Spring

Databases Microsoft Azure Cosmos (similar to MongoDB), Google Firestore (NoSQL), Microsoft SQL Server

General Computing Linux (Ubuntu, Raspbian/Debian, QNAP OS), Docker,  $\text{\LaTeX}$