

Yacoub Ahmed | Software Developer

www.yacoubahmed.me

PERSONAL SUMMARY

Undergraduate Computer Science student looking for Software Developer positions starting August 2021.

CORE SKILLS

- Python, Javascript (4 years experience)
- HTML, CSS (2 year experience)
- C# (2 years experience)
- C, Java (basic knowledge)
- Tensorflow, Keras, Pytorch
- React, Nextjs, GraphQL
- MySQL, MongoDB, Django
- Automated Backend Service Development
- CI / CD

EDUCATION

University College London

MEng Computer Science

First year - 71% Second year - 73% Third year - 83%

London
September-2017 - Present - June 2021

Sir Joseph Williamson's Mathematical School

A Levels - Mathematics - A Further Mathematics - A* Physics - A*

Rochester, Kent
September 2015 - June 2017

WORK EXPERIENCE

Medisyn Metodebok

Frontend Web Developer

- Worked as a solo developer to produce a web app for creating and sharing medical procedures amongst hospitals.
- Used Javascript, React, Bootstrap and git to quickly prototype and push new features. Employed web design practices to produce a clean look and feel.
- Collaborated with CTO to design system-wide high-level architecture for authentication, database schema, load balancing and update polling.

Remote, Part-time
June 2020 – October 2020

Ocado Technologies

Software Developer

- Worked with members of Ocado Technologies research team to develop a Computer Vision based system for automatic checkout in shops around the UK.
- Augmented an existing cutting-edge object detection ML model YOLOv3.
- Developed a large-scale system for procedurally generating new datasets out of 3D scanned models of food products sold in stores to train the model.
- Worked with image augmentation techniques to inflate the generated datasets.
- Achieved using Python, Tensorflow and Keras APIs.

Hertfordshire, London
January 2019 – July 2019

Great Ormond Street Hospital

Software Developer and Client Liaison

- Worked alongside the CTO of Great Ormond Street Hospital to deliver a cross-platform mobile app used around the hospital.
- Designed app using Ionic with Cordova for compatibility with iOS and Android. Utilised npm for package handling and GitHub for version control/code collaboration.
- Developed a login service where users can register and generate unique QR codes granting them physical access around the hospital.
- Managed MongoDB database for securely handling user credentials and login information.
- Worked using HTML5 and CSS to develop a clean and consistent style across multiple pages. Style created in accordance with a design guide provided to us by our client.

Great Ormond Street, London
January 2018 – July 2018

PROJECT WORK

Web Terminal Emulator

October 2020 – November 2020

- Created a terminal emulator in React.
- User can pass in their own functions and interact with existing ones.
- Features file system and dice-game implementation.
- Javascript, React.

Socket.io Room-Based Server NPM Package

October 2020 – November 2020

- Implemented and published an npm package for adding room functionality to existing socket.io servers.
- Players can register usernames, create and join rooms, message within rooms and kick players.
- Rooms can contain individual functionality - i.e. to host multiple games of poker on one server.
- Used in dice-game project on my website.
- Javascript, NPM.

UCL Covid Tennis App

September 2020 – November 2020

- Worked with a classmate to develop a booking app used by UCL Tennis society.
- Developed an algorithm for restrictive booking to prevent the spread of coronavirus.
- App built using React, database using MongoDB and interactions handled using GraphQL.

Connected Mobile Game

March 2020 – August 2020

- Created a mobile puzzle game, connected, about connecting dots on a grid using multiple dimensions.
- Written in C# using the Unity game engine. Levels are procedurally generated, similar to sudoku generation.
- Preparing to release on iOS App store and Google Play store.
- C#, Python.

Sudoku Generation

October 2019 – March 2020

- Investigated algorithms for generating sudokus with varying difficulty levels.
- Developed an expert-system solver that outputs a series of human-understandable techniques for solving puzzles.
- Python, Colab.

Stock Trading Bot

September 2019 – October 2019

- Researched and created a stock price prediction algorithm using machine learning (specifically LSTMs).
- Made use of existing technical indicators to enhance predictive power.
- Released [Medium Article](#) (2.1K claps) and [GitHub repo](#) (251 stars and 145 forks).
- Python, Tensorflow, Keras.

Personal Website

February 2019 – Present

- Created a web platform used to host my personal projects.
- Hosted on a DigitalOcean machine, makes use of CI/CD for handling deployment.
- Flexible server architecture that allows for many services to run on one machine.
- Hosts a range of projects - from [AI driven hand-drawn digit classifiers](#) to [abstract art](#) and [terminal emulators](#).
- Next js, NodeJS, p5.