George Church

((Address))

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EDUCATION

University of Bristol **Bristol**
MEng Computer Science (Upper Second-Class Honours) *October 2014 - June 2019*

Greenshaw High School **Sutton, London**
A levels (Maths A, Further Maths A*, Physics A, Chemistry A)* *2012 - 2014*

KEY SKILLS

Units studied include: Data Structures and Algorithms, High Performance Computing, Machine Learning, Web Technologies, Computer Graphics, Cloud Computing, Deep Learning, Advanced Computer Architecture, Systems Security
Languages: JavaScript, Java, C#, C/C++, Python

ACADEMIC PROJECTS

Exchange Simulator (Master's Thesis) *Feb 2019 - May 2019*
- Researched the technical details of the London Stock Exchange's Turquoise Plato exchange
- Created a minimal simulator of the exchange using Python
- Ran simulations on the exchange with automated traders and examined the results

Cloud Computing Project *Oct 2018 – Dec 2018*
- I created a simple, scalable web application using Node.js and Express which runs on AWS services.
- The web server is run using Elastic Beanstalk. Images for the website are stored in an S3 bucket. DynamoDB is used for the database.
- I performed load testing of the web application using Apache Jmeter.

Superscalar Processor Simulator *Oct 2017 – Dec 2017*
- I created a simulator of a superscalar processor using C++.
- Features of the processor include a 5-stage pipeline, reservation stations, multiple execution units, out-of-order execution, register renaming and simple branch prediction.
- I also created my own simple assembly language and an assembler. I wrote a few assembly language programs for the processor to execute.

Reality Bomb - A Mobile AR Game *October 2016 – May 2017*
- I Worked in a group of six students to build an augmented reality game for iOS devices.
- The game was created with the Unity Game Engine.
- I mainly worked on the physics, game logic and networking of the game using C#

Web Technology Project *Feb 2017 – May 2017*
- Created a website using Node.js and the Express web framework that allows users to upload images and place comments
- Used MySQL/SQLite for the database
- Used CSS to create a simple responsive web design

Computer Graphics *Feb 2017 – May 2017*
- Created a rasterizer and a raytracer using C++, SDL and GLM.
- The rasterizer performed clipping and texture mapping.
- The raytracer performed antialiasing, soft shadows and bouding box optimisation.

Cotswold Water Park App *Oct 2015 – May 2016*

- Created an app for the Cotswold Water Park in a group of six students
- The app allows visitors to navigate their away around
- The app was created with X and Y

Interests

- I am currently learning German
- I enjoy regularly going to the gym
- Enjoy playing football and table tennis
- Enjoy learning and playing songs on the piano