

JOSHUA SPENCE

PERSONAL STATEMENT	<p>I love working with computers and code and have a keen interest in data and statistics also. For the last few years, I have been working as a Maths teacher and as a teaching assistant but have decided to change career into a role as a software developer/engineer, as I love the creativity and problem-solving aspects involved in troubleshooting and writing code. Since university, I have been writing code as a hobbyist, but I have more recently trained in software development with the Northcoders bootcamp which has an excellent reputation and a comprehensive syllabus for someone new to tech. The language taught in the bootcamp is JavaScript and I was exposed to several industry practices which I hadn't encountered as a solo-hobbyist coder such as pair coding, software testing frameworks and using GIT effectively.</p>
RELEVANT SKILLS & ABILITIES	<p>JavaScript: The Northcoders bootcamp covered the fundamentals of JavaScript with Node and various front-end and back-end libraries. The front end section of the course focused on using HTML, CSS and using the react framework. The backend section of the course taught about SQL databases, the Express framework, and best practices for error handling and testing.</p> <p>Python: I have completed online courses to learn Python. The first course focused on fundamentals, and the second Python course focused on Data science and Machine learning, introducing machine learning algorithms and packages such as SKLearn and Keras.</p> <p>MATLAB: During my MMath and MPhil degrees, I frequently used MATLAB. I used it mostly to solve matrix calculations to solve optics problems.</p> <p>C#: Earlier this year I completed the CodeAcademy course on C#, to broaden my programming knowledge</p> <p>Additional Technical Skills:</p> <p>React (Northcoders and CodeAcademy), PostgreSQL, HTML, CSS, Axios, Express, Jest, React-native with Expo, Firebase</p>
EXPERIENCE	<p>NORTHCODERS CODING BOOTCAMP</p> <p>Started in July 2022 – Ended October 2022</p> <p>Projects at Northcoders:</p> <p>Front-end: Whilst at Northcoders, I have gained experience with using HTML and CSS to design and build webpages. My front-end project for the Northcoders course was to design a website which allows users to filter and read reviews, post comments and vote on responses. I used the react framework with axios to build this, and it is hosted on Netlify.</p> <p>https://sunny-narwhal-f4e1dd.netlify.app https://github.com/JoshS1234/nc-games</p> <p>Back-end: I developed and build a backend API for a mock games review site. This responds to server requests and returns relevant data from a SQL database. This is the API that was used in the previously mentioned Front-end project. It uses the Express framework and postgresSQL and was tested using Jest.</p> <p>https://my-backend-server-josh.herokuapp.com/ https://github.com/JoshS1234/My-Backend-Project</p> <p>Group projects at Northcoders (Front-end and Back-end):</p>

	<p>Snap (mobile application): Working in a team of five, we developed a mobile application on a 2 week timeline which mimics the functionality of a disposable camera. I worked on both the front-end and back-end of the app, using React native with Expo for the front-end design, and firebase for the database, photo storage and authentication. I often led meetings to decide what our next priorities were. After completion, I added some additional functionality to the app and implemented some bug fixes.</p> <p>https://github.com/JoshS1234/MyUpdatedSnap</p> <p>TEACHING ASSISTANT/MATHS TEACHER, TRADEWIND RECRUITMENT (MAY 2023-PRESENT) TEACHER OF MATHEMATICS, CHEADLE HULME SCHOOL (2020-2022), WILMSLOW HIGH SCHOOL (2019-2020)</p> <p>The teaching roles required me to plan and deliver lessons, as well as meeting tight deadlines for marking and reporting. I regularly contacted parents to discuss strategies for improving student performance or to report positive progress. I brought new resources to the department, and introduced new tools to streamline learning, particularly helping with marking and feedback. In my final year as a teacher, I also led the Core Mathematics team, which required me to oversee two colleagues in the planning and delivery of content to year 12 pupils. I liaised with the Head of Department, and was responsible with planning when and how to assess students, and making contingency plans for teaching in the event of a lockdown.</p> <p>POSTGRADUATE RESEARCHER AND LAB TEACHING ASSISTANT – MANCHESTER UNIVERSITY (2016-2018)</p> <p>After the initial 6 month training period (April 2017), I selected a project studying quantum cascade lasers in the school of electrical and electronic engineering.</p> <p>DELOITTE – SUMMER VACATION SCHEME - AUDIT (2014)</p> <p>I worked for Deloitte’s Audit team during the summer holidays, conducting audits at several client sites and in the Deloitte Leeds office.</p>
EDUCATION	<p>CODEADACADEMY Learn C#, Learn React (Completed 2023)</p> <p>NORTHCODERS CODING BOOTCAMP (2022)</p> <p>PGCE IN SECONDARY EDUCATION (MATHS), UNIVERSITY OF MANCHESTER (2019)</p> <p>MPHIL ELECTRICAL ENGINEERING, UNIVERSITY OF MANCHESTER (2018)</p> <p>MMATH MATHEMATICS: FIRST CLASS WITH HONOURS, NEWCASTLE UNIVERSITY (2016)</p> <p>A-LEVELS, ILKLEY GRAMMAR SCHOOL (2012) Mathematics – A*, Physics – A, Biology – A, General Studies – B</p> <p>AS-LEVELS, ILKLEY GRAMMAR SCHOOL (2011/2012) Further Mathematics – A, Physics – A, Biology – A, General Studies – B</p> <p>UDEMY (ONLINE COURSES) Complete Python Bootcamp: From Zero to Python Hero (Completed 2020) Python for Data Science and Machine Learning (Completed 2022)</p>
References can be provided on request	