

<b>Education</b>	<b>BSc (Hons) Computer Science (First Class)</b> , The University of Edinburgh, (2016-2020) Notable Courses: Software Architecture, Process and Management; Software Testing; Extreme Computing; Distributed Computing; Algorithms and Data Structures	
<b>Work Experience</b>	<b>Javascript Developer</b> <i>Corero</i> (Sept 2020 - present)	<ul style="list-style-type: none"><li>• Worked as part of an Agile team creating a DDoS protection solution, primarily focused on user interfaces, collaborating using Git and JIRA</li><li>• Developed new reusable graphing utilities using <b>React</b> to visualise real-time data</li><li>• Simplified development pipeline by adding pre-commit checks to catch common mistakes such as copyright and linting errors before review using <b>Bash</b></li><li>• Improved and created <b>Splunk</b> dashboards to help users quickly understand complex data</li></ul>
	<b>Engineering Intern</b> <i>Skyscanner</i> (June - Sept 2019)	<ul style="list-style-type: none"><li>• Worked as part of a DevOps team responsible for the front page and website infrastructure, working with <b>React</b> and <b>NodeJS</b></li><li>• <b>Worked with designers and product managers</b> in improving the accessibility of the front-end components, informing design decisions with data</li><li>• Identified and built solutions to improve the website's performance such as <b>image lazy loading and CSS deferral</b> which improved page load times by 500ms</li><li>• Extended a <b>DroneCI</b> deployment pipeline to monitor the relative failure rate of old and new deployments to improve reliability when rolling out</li></ul>
	<b>Software Engineer</b> <i>HYPED</i> (Sept 2019 - Feb 2020)	<ul style="list-style-type: none"><li>• Contributed to a 200 person project that researches, builds and tests futuristic transport solutions; namely a Hyperloop Pod</li><li>• <b>Led a team in creating a continuous integration system</b> for a <b>C++</b> environment to improve software quality and reliability through unit, mocking and static testing</li><li>• Communicated across teams to gather feedback and teach members how to use our tools and develop effectively using a test-driven development methodology</li></ul>
<b>Personal Projects</b>	<b>Stepz (IoT Step Counting App)</b>	<ul style="list-style-type: none"><li>• Worked in a pair to design and implemented a step counter using a wireless IoT device to track the wearer's movement and present data through a <b>Java</b> app</li><li>• By drawing inspiration from published papers and analysing step data, we created a peak detection system to catch spikes in the user's motion</li><li>• The final system was robust against walking, running and climbing stairs and outperformed the Editor's choice step counting app on Android.</li></ul>
	<b>Mandelbrot Maps (Browser-based Fractal Renderer)</b>	<ul style="list-style-type: none"><li>• Created a browser-based Mandelbrot fractal viewer for my undergraduate dissertation; allows users to visualise the fractal and learn about its structure</li><li>• Involved converting a Java Applet to <b>React</b> to create a responsive experience on both desktop and mobile browsers while maintaining native performance</li><li>• Used <b>Rust</b> and <b>WebAssembly</b> to handle the high computation load of rendering the fractal, along with web workers to allow for parallel computation in the client</li><li>• Achieved a grade of 83%</li></ul>
	<b>Brilliant Online Buying (Automated Shopping Robot)</b>	<ul style="list-style-type: none"><li>• Built autonomous shopping system which allows allowing users to order groceries remotely and have a robot collect them for later pickup</li><li>• Worked in a group of eight over several months, achieving a final grade of 78%</li><li>• Created a <b>Node JS Rest API</b> to store customer data, plan movement and encode instructions for the robot</li><li>• Added networking capabilities to the robot and produced a system which connected to and orchestrated separate robot controllers wirelessly using <b>Python</b></li></ul>
	<b>Toy Browser Engine</b>	<ul style="list-style-type: none"><li>• Personal project to create a basic browser engine in <b>C++</b></li><li>• Involved parsing raw HTML and CSS, calculating the layout dimensions by following complex W3C guidelines and rendering to produce the webpage.</li><li>• Developed a deeper understanding of the mechanics behind a web page, giving me the knowledge to create more performant pages in the future</li></ul>