

'Are you a computer?' - I thought not. You are in fact a human-being reading this personal statement. But I'm curious to know how long it will be until it's a machine assessing applications like this.

My interest in Computing Science began with web development. After learning HTML at school, I was eager to try more out myself. Exploring web-design at home exposed me to other types of programming and I began teaching myself object-orientated languages like Python and C++. For recreation I love to code. Using Python, I built a program that web-scraped eBay for Gaming Cards and compared them to their market price, determining what listings are most profitable. With C++, I am currently working on a 2D RPG game that I would like to publish on Steam. Coding like this, has given me a greater understanding of programming techniques, problem solving and a knowledge of several programming tools. At school, participating in the annual Bebras and Maths Challenges has also developed my problem solving skills, gaining 2 gold and 2 silver awards in Maths.

I have a particular interest in machine learning, teaching myself basic algorithms like linear regression and k-nearest neighbours, and how to implement them in Python. It is a computer's ability to reliably predict outcomes given a set of previous data that makes me fascinated by machine learning. What started for me as initial interest on basic web-development and object-orientated programming, developed into a personal fascination of the possibilities for technology in society. I was curious to learn more.

I read 'The Creativity Code' by Marcus du Sautoy, which discusses whether computers can replace humans in the arts. In one chapter, Sautoy tells the story of how DeepMind's AlphaGo demolished our understanding of computer's limitations through its successful victories in the incredibly creative and complex Chinese game of Go. After researching further about AlphaGo's five-game series vs Go master Lee Sodol, my initial excitement was dampened, when I read some of the public responses. Rather than celebrating this achievement, people feared the extent to which computers will disrupt and replace our lives. My observations on society's fear led me to explore everyday areas where Computing can be applied. 'Algorithms to Live By' by Brian Christian and Tom Griffiths opened my eyes to dozens of instances where Computing Science can be a force for good in everyday life. Ranging from such concepts as analysing the best organ donor matches, to simple processes like organising one's sock drawer. This book made me realise the importance of Computing Science in our everyday lives and how we may already be applying highly mathematical algorithms into our own problems without thinking about it. Learning about these algorithms has caused me to appreciate Computing Science more, and understand further what it is actually all about – problem solving.

A Computer Scientist needs to be able to explain concepts as well as invent them. Communication though, is not something that comes naturally to me. So, to personally develop my own skills I have been taking part in voluntary work experience, weekly STEM discussion seminars and helping with school Computing Science classes.

For three years, I studied at a specialist music school for gifted students. I achieved Grade 8 Guitar and Grade 6 Trombone. I enjoyed performing in the orchestras and choir, where I

learned the importance of maintaining discipline, time management and teamwork. However, the most important lesson I learned was creativity, which is deeply relevant for Computing Science, when looking for an inventive solution to a problem.

I have a great enthusiasm for Computing Science and will be sure to maximise my time at university, learning as much as I can. As computing grows its relevance to society, I dearly want to be part of the teams that explore ways in which our everyday lives can be enriched through the problems that it solves.