THE NATIONAL MATHEMATICS AND SCIENCE COLLEGE

Computer Science

Preparation Materials for Computer Science Year 1

Python Programming

At NatMatSci we use Python as our main programming language.

Use the link below to work through the challenges at Snakify:

https://snakify.org/join_class/m.colliver/natmatsci.ac.uk/

It will add you to my 'class' so I can track your progress and help if you get stuck - do email me with any questions (m.colliver@natmatsci.ac.uk)

If you have done Python programming before you also might like to work through this tutorial:

https://kidscancode.org/lessons/

The Space Shooter is a good one to work through

For entry into Year 1

As well as completing some of the Python work above, there is an assumption that you will know a little bit about what a computer is and how it works.

These are all GCSE topics and worth having a read through before starting the A-level:

https://isaaccomputerscience.org/topics/gcse?examBoard=all&stage=all#all

Isaac Computer Science are also running some events over the Summer for students moving into A-level:
https://isaaccomputerscience.org/events?examBoard=all&stage=all&types=student

The GCSE to A-level voyager events would be well worth registering onto if you are free at that time.

If you are feeling adventurous then the CS50X course from Harvard would also be good to look at:
https://cs50.harvard.edu/x/2022/

This is Harvard's introduction to computer science and is well worth working through.

If you want to know a bit more about computer science then this is a good 'crash course' to look at:

https://www.youtube.com/watch?v=tpIctyqH29Q&list=PL8dPuuaLjXtNlUrzyH5r6jN9ulIgZBpdo

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