# **Kaius Conway-Lai**

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https://github.com/kc319

#### **Education**

10/2019 – 07/2023	Imperial College London, Electronic & Information Engineering MEng A course that develops knowledge in the Processing of Information, and Computers. Including Computer Architecture, Data Structures, Communications and, Control Systems.
09/2012 - 08/2019	The Manchester Grammar School  A-Levels - A* A* A A: Maths, Electronics, Further Maths, Physics  GCSEs - A* (Maths, English Lit + Lang, Physics, Chemistry, Biology, Electronics,  Greek + Latin, French), A^ (Further Maths), A (RS Islam)

## **Projects**

## **Analogue Music Synthesiser**

Created in LTSpice a simulated analogue synthesiser capable of playing an octave in C Major with various modulation effects such as an LFO, envelope generator, and VCF which offered unique sounds, which are charecteristic to analogue synths.

#### **Line Following Buggy**

Modified a simple buggy so it was capable of following a 'track' of black tape through turns by using simple electronics components and a microcontroller programmed in assembly.

#### **C** Compiler

Designed a C90 to MIPS compiler, using C++, that offered support for wider range of C keywords, with an emphasis on strong foundations that support code readability and future feature implementation.

## **Extra-Curricular**

## Southampton National Cipher Challenge, 2nd Place 2017-18

As a team, we decrypted given ciphertexts across 8 weeks using our collective programming and cryptography experience, teamwork, and intuition. We finished 2nd in the country receiving an £800 cash prize.

## **School Volunteering**

Helped with various events such as open days / after school speakers.

Volunteered at a local primary school helping with reading as well as numeracy/literacy.

Presently a STEM Outreach ambassador for Imperial College London.

#### **Skills**

C++ System Verilog

Excel Assembly (MIPS, PICAXE)