

Rory Ainsworth

roryredking8@gmail.com | 8 Hillside, Main Road, Chillerton, Isle Of Wight PO30 3EY |
| 14-04-2007 age - 17 | School Year 13 | 07936612521

Personal Statement

My aim is to work in the areas of electronics, embedded systems and software. From an early age I have been surrounded by electronics, coding and engineering.

My immediate family have expertise ranging from electrical engineering to aerospace composite research and development. They have brought me up surrounded by their works and interests leading to me growing a broad and intense interest in anything innovative or problem solving especially in electronic engineering and coding.

Engineering/Related Experiences

- I have been working on soldering and electronics since year 5
- I started coding in Scratch in year 5 - then moving onto Python upon starting high school - then starting on C++ once I joined the Sixth Form.
- I started using parametric CAD (Fusion 360) in year 11 for my GCSE Design Technology Coursework - and many other times since then for personal projects
- I started FDM 3D printing in conjunction with learning CAD - again for my GCSE design and for personal projects
- I have also got experience coding and wiring micro controllers and circuits

Key Skills and Personal Attributes

- **Logical and Organized:** Highly logical thinker with a structured and ethical approach to problem-solving. I value good design and functionality in engineering solutions.
- **Creative and Inventive Problem-Solver:** Passionate about creating innovative solutions. I have designed and developed human interface devices such as custom keyboards and mice using Fusion 360. I also enjoy working on both original designs and modifying open-source projects, bringing these to life through 3D printing.
- **3D Design and Printing Expertise:** Over two years of experience with 3D printing, which has honed my understanding of the iterative design process. Printing both community designed files as well as my own unique designs
- **Digital Literacy:** Proficient in Microsoft Office, Google Suite, and various Apple applications. Comfortable using Windows, Chrome, Mac, and Linux operating systems, including configuring and installing Linux on personal devices.
- **Leadership and Responsibility:** As an older sibling, I have developed strong organisational and leadership skills. I often take responsibility for preparing meals, delegating tasks, and overseeing projects at home. I am confident in managing processes to achieve goals efficiently.

Projects

- **Project Image Portfolio**

https://docs.google.com/presentation/d/14tz_L8qLYGYjZrB8p4ViolICXrf0adOlq4OyXr3Os7o/edit?usp=sharing

- **A level Coding project**

Features :

- Raw data Handling
- Networking
- Reading / writing to and from files
- Data serialisation + deserialisation
- Pixel Based Graphical user interface
- currently at 2000 lines of fully functional C++ code
- Lots of safe use pointers and editing of raw memory for speed and efficiency

- **Hand-Wired Custom Keyboards**

Fabricated and hand-wired custom keyboards using 3D-printed components and open-source resources, then coding the source code on the microcontrollers using code libraries to achieve a functioning keyboard

- **Custom 3D-Printed Ultra Lightweight Mouse Shells**

Created and printed custom-designed mouse shells, showcasing attention to ergonomic design, functionality and strength to weight ratio.

Close consideration to where strength is required and where weight can be removed was vital to shave off weight to create a lightweight design which does not compromise on strength

https://www.printables.com/@crbn_559839 I have uploaded some of my designs on to this website alongside fabrication instructions and more explanations

Education

Island VI Form, September 2023 – Present

A-Levels:

- Maths (Currently B)
- Computer Science (Awaiting most recent results, previously A)
- Physics (Currently C, aiming for improvement to A)

Carisbrooke College, September 2019 – July 2023

GCSEs:

- **Grade 8 (≈A):** Maths, Chemistry, Design Technology, Food Tech
- **Grade 7 (≈A):** Computer Science, Physics, English Language
- **Grade 6 (≈B):** Biology, Mandarin Language

Highlights:

- Achieved 90/100 for GCSE Design coursework, where I taught myself 3D modelling in Fusion 360. Designed a modular desk organisation system as a unique and complex project.
- 1 mark of a Grade 9 in GCSE maths.

WORK EXPERIENCE

September 2023 - July 2024 **Waiting team member (Waiter)** at Norton Grange (Warner Leisure) In this service industry role I have developed my skills and aptitude in the following areas:

- Team working and coordinating work, including running the restaurant station
- Providing an efficient and seamless service to guests
- Polite, courteous, and professional demeanour
- Time keeping and punctuality
- Consistent, reliable and capable worker

References

Managers :

Stacey Cakewell - Staff Manager at Norton Grange
- +44 7984 992380

Teachers :

Mr Gloyn - The Island VI form, A level Maths teacher
- james.gloyn@carisbrooke.iow.sch.uk

Mr Palmer - The Island VI form, A level Physics teacher
- peter.palmer@theislandviiform.org.uk

Mr Fleming - Carisbrooke College, GCSE Design Technology Teacher
- anthony.fleming@carisbrooke.iow.sch.uk

Mr Burnett - Carisbrooke College, pre-GCSE Geography/English Teacher
- adam.burnett@carisbrooke.iow.sch.uk

Mr Jager - Carisbrooke College, GCSE Chemistry teacher / tutor
- ed.jager@carisbrooke.iow.sch.uk

Mr Cody - Carisbrooke College, GCSE English Teacher
- joe.cody@theislandviiform.org.uk

Other Hobbies :

Sailing - Achieved RYA Level 4 dinghy sailing
Music - Learning Piano as a hobby since year 8