Ewan Chamberlain

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Education

University of Cambridge, Robinson College

10/2019 - 07/2021

 $MSci\ in\ Astrophysics$

1st Class with Distinction

BA (Hons) in Natural Sciences

September 2012 – July 2019

King Edward VI School

A-Level Mathematics, Further Mathematics, Physics, Chemistry

A *A *A *A *

1st Class

Projects

Powerful AGN outflows at cosmic noon can solve the S8 tension?

10/2022 - Present

Master's Project

- Exploring powerful AGN outflows to see if these can help solve the S_8 tension.
- Reviewing literature around baryonic effects on the matter power spectrum.
- Running simulations and analysing and transforming simulation data of over 100 million particles in Python with HPC.

CATAM II 10/2022 - 05/2022

Part II Astrophysics Computational Projects

- Completed two independent computational projects in MATLAB about different areas in Astrophysics.
- Cosmological Distances: Computed distances as functions of redshift in different cosmologies, and comoving volumes of 114 quasars.
- Accretion Disks: Evolved an accretion disk orbiting a massive object for 10⁷ time steps.

Introduction to Computing

01/2021 - 03/2021

Part IB Physics B Course

- Self-lead C++ course, learning through weekly projects. Projects of note are:
- Plotted the trajectory of different hyperbolic orbits and created a movie of the orbits.
- Calculated the evolution of 100 particles compressed by a piston.

Experience

Webmaster 06/2022 - Present

Robinson College Video Game Society

- Updating society website with HTML by connecting to a remote server with SSH.
- Built and maintained multiplayer servers using Linux and Bash.
- Created an SQL database to store information on owned games.

Finance Assistant

Intermittent 07/2019 - 09/2022

Calor Gas

 $Warwick,\ United\ Kingdom$

- Performing a range of tasks in the Financial and Accounts Payable teams.
- Processed an average of over 100 invoices each day with DocuSphere, and tank transfers with EnterpriseOne.

Treasurer 10/2021 - 03/2022

Cambridge University Karate Club

- Maintained treasury and accounts for the club using automated Excel spreadsheets.
- Implemented a Python script to automate creating invoices for ~100 members, saving over 2 hours per term.
- Presented a summary of the accounts and a forecast into the nearby future at the Annual General Meeting.

Skills and Awards

Programming Languages and Technologies: Python, Numpy, Matplotlib, Pandas, Jupyter, C++, Linux,

Bash, Excel

Foreign Languages: Spanish (intermediate, GCSE A*)

 ${\bf Public~Speaking:~LAMBDA~Gold,~Grade~8}$

Robinson College Prize and College Scholarship.

Other Interests

Karate: 2nd Dan black belt, competed for University team at national competitions. Instructor for the

University club.

Piano: Grade 3, Trinity College