





# Ryan T Gibb

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## EDUCATION


**UNIVERSITY OF CAMBRIDGE** 2021 - 2022

MPHIL IN ADVANCED COMPUTER SCIENCE

- Specialising in Computer Systems.

**UNIVERSITY OF ST ANDREWS** 2017 - 2021

BSc HONS COMPUTER SCIENCE

- 1<sup>st</sup> Class Honours.
- Dissertation: 'Ubiquitous Communication for the Internet of Things'. 
- John Honey Prize. 2020  
**Best student in the Junior Honours (3rd) year.**
- Christopher Strachey Prize. 2019  
Best student in the core module of data structures and algorithms.
- Dean's List Award for exemplary academic achievement in every year.

**NORTH BERWICK HIGH SCHOOL** 2011 - 2017

- School prize for highest achievement in AH Maths, AH Computing Science, Higher Maths, and Higher Computing Science.

## WORK EXPERIENCE

**CISCO** June - Sep 2021

SOFTWARE ENGINEER INTERN

- Backend development on [Cisco Defense Orchestrator](#).

**UNIVERSITY OF ST. ANDREWS**  Jun - Aug 2020

UNDERGRADUATE RESEARCH ASSISTANT

- Designed, implemented, and benchmarked multi-core and cache efficient algorithms for high degree permutations in C and Rust.
- Resulted in a 64% faster parallelised algorithm for degrees of  $2^{32}$ .

**JP MORGAN CHASE & CO.** Jun - Aug 2019 (10 weeks)

SOFTWARE ENGINEER INTERN

- Created a Message Recovery Service for an OTC Derivatives System.
- Used Spring, React, and Typescript; deployed on Cloud Foundry.
- Resulted in trade status update auditability and saved developer time.

## POSITIONS OF LEADERSHIP

**COMPUTER SCIENCE SCHOOL PRESIDENT** Jul 2020 - Jul 2021

- Ran a remote orientation week collaborating with the school and societies.
- Created a school-wide mentorship scheme with over 200 participants.
- Line managed 11 class reps.
- Chaired semesterly Student-Staff Consultative Committee meetings.

**STACS TREASURER** May 2019 - May 2020

- Responsible for St. Andrews Computing Society's finances (~£15k).
- Point of contact with sponsors for coordinating events.
- Organised 2 hackathons 'Hack the Bubble' and 'StacsHack'.

**2ND YEAR CLASS REP** Sep 2018 - May 2019

- Represented my year in conjunction with the faculty and school president.
- Organised year wide social events.

## SKILLS

- Computer Systems
- Distributed Systems
- Operating Systems
- Networking
- Unix Shell
- git
- vim
- Data structures and algorithms
- Agile, Scrum, Jira, Jenkins
- C, Python, Java, SQL, Rust, Haskell, C#,  $\text{\LaTeX}$ , Javascript (Node.js, React.js, Angular.js)

## COMPETITIONS

**STACSHACK V**   2019

- Created a tweet guessing web game 'Twitcher' in 24 hours.
- Using a Node.js backend interfacing with twitter's API.
- Won American Express's 'icebreaker challenge'.

**HACK THE BURGH V**  2019

- Created a text-to-speech and speech-to-text web app phone system 'HearMe' for the hearing-impaired in 24 hours.
- Using React.js and Node.js.
- Won JP Morgan's 'empowering minority entrepreneurs' award.

## PROJECTS

**COLOUR SPACE COMPRESSION** Java 

- Uses the K-means clustering algorithm to compress the number of colours in an image.

**IMAGE STEGANOGRAPHY** Python 

- Hides data (plaintext, images, or other files) in the least significant RGB bits of pixels in an image.

## REFERENCES

Available on request.