






Ryan T Gibb


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EDUCATION

UNIVERSITY OF ST ANDREWS

2017 - 2021

BSc HONS COMPUTER SCIENCE

- Dissertation: 'Ubiquitous Communication for the Internet of Things'. 
- 1st Class Honours.
- 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 - Present

SOFTWARE ENGINEER INTERN

- Working 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

SCHOOL PRESIDENT

Jul 2020 - Jul 2021

As president of the School of Computer Science: representing the student body; ran a remote orientation week collaborating with the school and student societies; created a school-wide mentorship scheme with over 200 participants, and line managing 11 class reps.

STACS TREASURER

May 2019 - May 2020

Responsible for St. Andrews Computing Society's finances (approximately £15k); communicating with sponsors; and organising events, including 2 hackathons called Hack the Bubble and StacsHack.

CLASS REP

Sep 2018 - May 2019

Represented my 2nd year class to solve problems in collaboration with the faculty and school president, as well as organising year wide social events.

SKILLS

- Computer Systems
Distributed Systems
Operating Systems
Networking
- Communication
Teamwork
Leadership
- Unix Shell, Git, Vim.
- Data structures and algorithms.
- Agile, Scrum, JIRA, Jenkins.
- C, Python, Java, SQL, Rust, Node.js, Haskell, C#, \LaTeX , Javascript (Node.js, React.js).

COMPETITIONS

STACSHACK V

  2019

- Created a tweet guessing web game 'Twitcher' in 24 hours.
- 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.
- 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.