Ryan T Gibb

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EDUCATION

UNIVERSITY OF CAMBRIDGE MPHIL IN ADVANCED CS 2021 - 2022
- Advanced Computer Science (ACS) MPhil scholarship.
- Thesis titled 'Spatial Name System', supervised by Anil Madhavapeddy and Jon Crowcroft.

UNIVERSITY OF ST ANDREWS BSc HONS COMPUTER SCIENCE 2017 - 2021
- 1st Class Honours in Computer Science
- Dissertation: 'Ubiquitous Communication for the Internet of Things' ↗
- John Honey Prize. 2020
  Best student in the Junior Honours class (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 SOFTWARE ENGINEER INTERN Jun - Sep 2021
- Working on Cisco Defense Orchestrator.
- "Key contributor on a project to re-architect [the] MongoDB multi-tenancy solution."
- Overhauled the error handling for an Angular front end microapp.

UNIVERSITY OF ST. ANDREWS RESEARCH ASSISTANT 💻 Jun - Aug 2020
- 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. SOFTWARE ENGINEER INTERN Jun - Aug 2019
- 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 2020 - 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 2019 - 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 2018 - 2019
- Represented my year in conjunction with the faculty and school president.
- Organised year wide social events.

SKILLS

- Computer networking
- Operating systems
- Distributed systems
- Unix shell
- `git`
- `vim`
- Data structures and algorithms
- Agile, Scrum, Jira, Jenkins
- C, Python, Java, SQL, Rust, Haskell, C#, 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.