





Ryan T Gibb

 gibbr.org
 github.com/ryangibb
 linkedin.com/in/ryan-gibb
 ryan@gibbr.org

EDUCATION

UNIVERSITY OF CAMBRIDGE

PHD IN CS 2022 - present

- Working in the Systems Research Group and Energy and Environment Group supervised by Anil Madhavapeddy and Jon Crowcroft.

UNIVERSITY OF CAMBRIDGE

MPHIL IN ACS 2021 - 2022

- Awarded the ACS MPhil scholarship.
- Pass with distinction in Advanced Computer Science (ACS).
- Dissertation: 'Spatial Name System'.



UNIVERSITY OF ST ANDREWS

BSc HONS CS 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.

WORK EXPERIENCE

TARIDES

RESEARCH INTERN Jul - Sep 2022  

- Added support for deploying MirageOS unikernels on NixOS.

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'.

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.