

# Ilya Carey

Curriculum Vitae

DoB: 23/11/99

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Jesus College, Cambridge



## Profile

I graduated from Jesus College, Cambridge, in 2020 with a double first in Natural Sciences, and I am now (2021-22) studying an MPhil in Biological Sciences at Cambridge. As a person who has a multi-cultural background and having moved schools half a dozen times, I have amassed a wide range of experiences and I have become proficient at learning new skills quickly.

## Academic Background and Experiences

### Tutoring

- Have tutored chemistry, biology, and mathematics up to A-level standard as well as for the Cambridge Natural Sciences entrance exam (NSAA). Have worked with Oxbridge Applications, Oxford Tutors, Leading Education, A-team Academy, Dreamseekers Academy, Your Dream School, Tutorful, Superprof
- Have conducted mock interviews for biology and veterinary medicine, and also coordinated over 150 Oxbridge mock interviews in 2021 admissions cycle for about 50 students and with about 25 mock interviewers.

### 2013-2018 Simon Langton Grammar School for Boys in Canterbury

- 9 A\*s at GCSE and 5 A\*s at A-level in:
  - Chemistry, recipient of school's chemistry award
  - Further Mathematics
  - Mathematics
  - Biology
  - Dutch
- A\* (45/45) in Extended Project Qualification (EPQ) in 2017:
  - Conducted [research project](#) investigating iridescence in *Chrysochroa wallacei* beetle
  - My research was published in the [Young Scientists Journal](#) and presented at multiple symposia, including 6<sup>th</sup> International Science Conference for Students at St Paul's School, and my work made me a winner of KM Charity Team's Bright Spark Award
  - Used scanning and transmission electron microscopes for research
- Gold in British Biology Olympiad and progressed to second round (top 103 in UK)

### 2018-2021 University of Cambridge, Jesus College: Double First in Natural Sciences (BA)

- First year modules (Class 1 overall):
  - Biology of Cells
  - Chemistry (placing top in college)
  - Evolution and Behaviour (for which I was a course representative)
  - Mathematical Biology (ranked 4<sup>th</sup> in cohort of 191 with score of 85.2/100)
- Second year modules (everyone passed due to COVID-19):
  - Cell and Developmental Biology
  - Evolution and Animal Diversity
  - Plants and Microbial Sciences
- Third year (Class 1 overall, ranking 10<sup>th</sup> in Zoology cohort)
  - Genome to Proteome (from Biochemistry course)

- Evolution and Behaviour: Genes and individuals (from Zoology course)
- Evolutionary Genetics and Adaptation (from Genetics course)
- Bioinformatics (covering content including sequencing, machine learning, GWAS)
- [Third year research project](#):
  - “Simulating heterozygote instability and testing if the D-statistic is confounded by differing mutation rates in Hominin evolution”, supervised by Prof. William Amos
  - Used forward-simulation software SLiM and a supercomputer for simulations
  - 2021 summer internship to continue research

2019 Summer Internship in Zoology department at University of Cambridge

- Completed internship with Dr Berthold Hedwig’s group; supervised by Dr Steve Rogers
- Studied effect of nitric oxide drugs on phonotaxis of *Gryllus bimaculatus* cricket
- My research is on track to be incorporated in a wider publication on the topic
- I was a recipient of the Zoology department’s Balfour-Browne fund for this internship

2021: Part-time volunteer at biotechnology start-up Animal Alternative Technologies (AAT)

- Produced promo video that helped AAT place [3<sup>rd</sup>](#) in Cambridge out of hundreds of start-ups

**Non-academic information**

Extra-curricular information

- At School:
  - Choir
  - Climbing
  - Orchestra (violin)
  - Duke of Edinburgh Awards
  - Tutoring mathematics to lower years
  - Volunteered for Kent Refugee Organisation Network (KRAN)
- At University:
  - Various positions for societies including:
    - Secretary and competition secretary of CU Mountaineering Club
    - Treasurer, social secretary, and webmaster of CU Belgian Society
    - Secretary of Anning Club (fossil hunting club)
    - Vice-President and webmaster of Cellular Agriculture CU
    - President of Jesus College Climbing Club
    - College Athletics captain
  - Member of Jesus Singers choir
  - Involved with Cambridge Footlights
  - Represented university for climbing and athletics, represented college for squash
  - Video editor at the Cambridge Union
- Other:
  - Passed driving test in 2017
  - Enhanced DBS check (2020)
  - Produce educational videos helping students with Oxbridge applications and studying
  - Competent in Excel, video editing, image manipulation, graphic design, and videography
  - Keen climber and mountaineer, having climbed the 5600m volcano Mt Damavand in 2016, and I hold NICAS 1-2 qualifications

Languages

- English: Native proficiency.

- Dutch/Flemish: Fluent.
- Persian: Fluent speech, limited reading and writing; interpreter for Coventry Refugee and Migrant Centre.
- French: Basic proficiency.
- Latin and Greek: Some experience from school.
- Coding languages: I have experience with R, Python, Eidos (SLiM), and command-line.