

# Zachariah Newbery

Third-year computer science student at the University of St. Andrews with a natural curiosity nurtured through self-motivated learning with like-minded students to learn multiple languages, alongside a broad academic and linguistic foundation.

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## EDUCATION

### University of St. Andrews, St. Andrews — MSci Computer Science

GRADUATION DATE: JUN 2023

First Year: OOP, Programming with Data, Programming Projects, Mathematics, Organic & Biological Chemistry 1, Astronomy & Astrophysics 1  
Weighted Average: 18.4/20 (1st)

Second Year: Foundations of Computing, Computer Systems, Advanced Programming Projects, Linear Mathematics, Multivariate Calculus  
Weighted Average: 17.7/20 (1st)

Class Representative for First Year Computer Science.

### SJI International High School, Singapore — International Baccalaureate

JAN 2016 - NOV 2018

Total: 43/45 (Diploma Awarded)

Higher Level - Physics (7), Chemistry (7), Mathematics (7)

Standard Level - Psychology (7), Spanish Ab Initio (7) English Lang/Lit (6)

## EXPERIENCE

### University of St. Andrews, St. Andrews — Undergraduate Research Assistant

SEPT 2020 - PRESENT

- Implemented data visualisation within a biological evolutionary simulation (S.E.E) using C# within Unity to help with user interaction.

### SJI International Elementary School, Singapore — Teaching Partner (Part-Time)

JAN 2018 - AUG 2018

- Aiding teachers in ensuring students understood and had learnt material. Primarily worked with 6-10-year-old children, helping with Math and Science.
- Assisting a student in remission from Leukaemia, to ensure that her readjustment to school life after hospitalization went smoothly.

### SJI International Elementary School, Singapore — ECA Provider (Part-Time)

JUN 2015 - DEC 2017

- Introducing and teaching a group of ~25 6-12-year-old students programming in HTML/CSS, Ruby and Python, enabling them to create simple projects within weeks.
- Ensuring all students were kept engaged, with none of them out of their depth, whilst organizing lessons to ensure all students had something to learn.

## PROJECTS

### CS1006 Project 3 — Hex

Creating a working simulation of the game Hex using **Java**, allowing connection between a client and a server, or 2 players on the same device. Developed alongside a GUI for comfortable user interaction. Furthered network skills, and UX programming.

### CS2006 Project 1 — REPL Calculator

Developed in **Haskell** as part of a group in order to develop skills related to tokenization, parsing and lexical analysis, alongside a broad introduction to functional programming.

## SKILLS

- Written/Verbal Communication
- Teamwork
- Critical Thinking
- Problem Solving
- Leadership

## AWARDS

University of St. Andrews

-Dean's List (Year 1, Year 2):

Attained a first-class mean module grade.

-Christopher Strachey Prize:

Awarded to the best student in CS2001 (Algorithms and Data Structures).

-Supplementary Medal awarded for performance in CS2001.

University of St. Andrews Athletic Union

-Half Blue awarded for activities in Taekwondo

Taekwondo

-3rd Degree Black Belt, Bronze and Gold Medals at National Competitions.

ABRSM

-Grade 5 Saxophone.

National Youth Achievement Award

-Gold (DoE award equivalent).

## LANGUAGES

**Spoken:** English, Spanish, Mandarin Chinese.

**Programming:** Java, C, Python, Haskell, SQL, JavaScript (& jQuery).

**Markup:** HTML, CSS, LaTeX, AST.