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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LinkedIn Profile

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.