# Phuc Nguyen

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<u>Github</u> <u>Linkedin</u>

### Education

University of Adelaide Feb 2023 - Dec 2025

Bachelors of Mathematics and Computer Science GPA: 6.75/7.00

Glenunga International High School, South Australia

Feb 2018 - Nov 2022

Awards: Research Project Merit, High Achievers Award ATAR: 99.35 (selection rank 99.95)

## **Experience**

#### **Topcon Agriculture | Software Testing Intern**

Nov 2023 - Jan 2024

- Automated the regression testing process of apps, replacing the need for a manual testing (Squish, Python)
- Enabled headless running of GUI tests

Mathematics tutor Jan 2022 - Ongoing

- Delivered one-on-one tutoring sessions to highschool mathematics students with an emphasis on conceptual understanding
- Brought underperforming students to the A and A+ grade bands by identify strengths and areas for improvement

## **Projects**

#### Agriculture Game | C++, SFML

Aug 2023 - Sep 2023

- Spearheaded a team project focused on developing a farm management game
- Orchestrated the project's structural design, leveraging prior graphics and library experience to construct the code base's framework
- Demonstrated astute decision-making by assessing project scope, time constraints, and the importance of showcasing specific concepts.

## Binomial Pricing Model for Call and Put options | C++

Jul 2023 - Aug 2023

- A C++ implementation of the backward-induction pricing formula for determining rational premiums of put and call options in a Cox-Ross-Reubenstein market model
- Applied financial mathematical concepts taught from UoA Course MATH3002 Financial Modelling: Tools & Techniques

## 3D Ray Caster

Dec 2022 - Jan 2023

- Developed a 3D raycaster program in C using the Minilibx graphical library as a passion project
- Implemented the rendering of coloured objects and shadows from a camera's perspective
- Self implemented low level functions that dealt with interactions between vectors and objects described by mathematical equations

# Skills and Technology

- Programming languages: Proficient in C, C++ | Novice in Python, MatLab, R
- Technologies: Squish, Linux, Sfml, Excel, Git
- Coursework: Calculus, Linear Algebra, Differential Equations, Statistical Modelling, Hypothesis Testing, Probability, Algorithm and Data Structures, Object Oriented Programming
- Languages: English, Vietnamese

# **Community and Volunteering**

- Competitive Programming Club (Adelaide University)
- South Australia Judo State player (bronze -66kg Australia Nationals 2023)
- Judo Coach at Adelaide University Judo Club
- Judo Club committee