

# Casper Ng

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## EDUCATION

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### National University of Singapore

*Bachelor of Computing in Computer Science, 2nd Major in Mathematics*

Singapore

*Aug. 2023 – Present*

- Grade: 5.0/5.0
- Relevant Coursework: Discrete Structures, Programming Methodology, Data Structures and Algorithms, Multi-variable Calculus, Linear Algebra

### Hwa Chong Institution

*Singapore - Cambridge GCE A Levels*

Singapore

*Jan. 2015 – Dec. 2020*

## PROJECTS

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### Web Forum | *React, Express, TypeScript, PostgreSQL, Material-UI*

Dec. 2023 – Jan. 2024

- Developed a full-stack web application using with Express serving a REST API and React written in TypeScript as the frontend
- Implemented JWT Authentication for user account management
- Incorporated Material-UI elements in the frontend

### Portfolio Website | *NextJS, TypeScript, TailwindCSS, Framer Motion*

Nov. 2023 – Dec. 2023

- Created a personal portfolio website hosted [here](#)
- Incorporated Framer Motion to create a more responsive and interactive UI
- Used TailWindCSS for styling the frontend

## HACKATHONS

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### Hack and Roll 2024 | *VBA*

Jan. 2024

- Collaborated in a group of 4 to replicate a neural network in Excel given pre-processed data
- Handled the VBA functions to perform the necessary calculations, such as forward and backward propagation and relevant matrix operations

### PSA CodeSprint 2023 | *Python, NumPy*

Sep. 2023

- Created a recommendation algorithm with collaborative filtering using NumPy to match juniors to senior staff for cross-department mentoring

## EXPERIENCE

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### Platoon Commander / Staff Officer

Dec. 2021 – May 2023

*607 SQN, RSAF*

*Singapore*

- Responsible for the training and welfare of security troopers for Paya Lebar Air Base
- Compiled and reviewed the squadron's Standard Operating Procedure (SOP) to streamline operational processes
- Ensured zero audit findings during the squadron's annual audits, including No-Notice Audits, by demonstrating clear alignment of squadron processes with RSAF guidelines

## TECHNICAL SKILLS

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**Languages:** Java, Python, C/C++, SQL (Postgres), JavaScript/TypeScript, HTML/CSS

**Frameworks:** React, Node.js, Express, NextJS, TailwindCSS

**Libraries:** Material-UI, NumPy, Framer Motion