

## EDUCATION

---

### National University of Singapore

Aug 2022 - Jul 2026

#### Bachelor of Science in Business Analytics

- NUS Computing Club 26th Main Committee, President
- NUS Overseas College, Vietnam, Ho Chi Minh City, 3 Months
- NUS Overseas College, Paris, France, 6 Months
- Awarded the NUS Student Union Council Merit Award

## SKILLS SUMMARY

---

- Programming Languages: Python, JavaScript, SQL, TypeScript, Shell Command Language
- Languages: Fluent in English and Mandarin (Both spoken and written)
- Tools and Frameworks: Scikit-learn, TensorFlow, SQL, NoSQL, BigQuery, Git, ReactJS, Node.js
- MOOCs Certifications: Google Cloud Professional Machine Learning Engineer Certification, Dynamic Public Speaking, Google Data Analytics Specialization, Introduction to JavaScript, Literacy in AI, Prompt Engineering for ChatGPT, Platform Thinking: What's beyond Uber?
- UEH BizTech Hackathon 2023 - Third Placing

## INTERNSHIP & WORK EXPERIENCE

---

### Parametris, Machine Learning and Software Engineer Intern

Aug 2024 - Present

- Architected and engineer scalable backend schemas and infrastructure, optimizing data storage and retrieval for high efficiency in real-time client applications
- Leveraged AWS Bedrock for Retrieval-Augmented Generation implementations, enhancing document processing and query answering on complex insurance data. Utilized AWS SageMaker to design, train, and deploy machine learning models, achieving a predicted avoidance of 30% of adverse events for clients
- Built a robust, responsive frontend platform using Next.js, providing user-friendly interfaces for clients and insurers. Integrated AWS Cognito for secure, seamless authentication and authorization, enabling distinct dashboards tailored to clients and insurers
- Conceptualized and standardized company's design theme and colour scheme, ensuring brand consistency and an intuitive user experience. Boosted usability by implementing cohesive design layouts across platform, improving navigation and engagement
- Deployed large language models by developing intelligent agents to enhance backend flexibility and responsiveness, enabling dynamic data processing and improving system performance and scalability

### Singapore Immunology Network (SigN), Bioinformatics Research Intern

May 2024 - Aug 2024

- Analysed large-scale genomic datasets with over 7 million rows, producing insights, shifting research directions
- Integrated more than 11 open-source bioinformatics tools into a custom automated pipeline to streamline analysis
- Developed a Shell and Python automation to extract and group cell barcodes, segment TCR  $\alpha$  and  $\beta$  chains per cell, and reconstruct TCR chains using de novo assembly.
- Increased barcode recovery from 608,700 to 2,181,878, advancing cell barcode extraction
- Innovated a novel Python-based method to separate TCR  $\alpha$  and  $\beta$  chains without need for a whitelist, achieving an average accuracy of 90% on sequences from 100 unique cell barcodes using Method utilized a clustering algorithm based on Ward's linkage, demonstrating effectiveness in clonotype identification for long-read sequencing applications
- Served as third co-author on Refining TCR Clonotype Identification With Long-Read Sequencing Technique, submitted to the Society for Immunotherapy of Cancer (SITC), supporting cancer vaccine development

### LFG, Software Developer Intern

May 2023 - Aug 2023

- Collaborated with 4 development team members to design and implement website and product features
- Wrote over 5,000 lines of clean, efficient, and maintainable code to develop MVP
- Collaborated with 3 designers to ensure user interface is responsive and user-friendly, aligning design and development team

### Republic Singapore Air Force, National Service

Jan 2020 - Apr 2022

- Performed in National Day Parade 2021 and SAF Day 2021 as Guards of Honours

- Awarded "Best Airman of the Month" in August 2021 for going beyond duties
- Founded the NSF Council, impacting over 20 NSFs in 3 departments, by arranging 3 welfare events across 4 months

## **EXTRA-CURRICULA EXPERIENCE**

---

### **ASEAN Business Youth Organization, Lead Website Developer** **Jun 2023 - Oct 2024**

- Directed a team of 3 website developers, 2 UI/UX designers and 2 copywriters from 3 different ASEAN countries in building a new full-stack website application
- Conduct code revisions and optimisation on a bi-weekly basis
- Wrote over 39,998 lines of code to implement user authentication and key features

### **NUS Computing Club, President** **Sep 2023 - Sep 2024**

- Led a team of 30 in organising over 20 club events relating to student life and development, impacting 5,000 undergraduates
- Allocated and managed club's finance of up to \$300,000 to 4 departments organising over 20 events

## **COMMUNITY INVOLVEMENT**

---

### **ACJC Overseas Community Involvement Program (Chiangmai), Vice President** **Jul 2018 - Nov 2018**

- Showcased leadership and managerial skills by orchestrating a team of 5 in planning and execution of educational and fun activities for less privileged, and directing and allocating tasks to a group of 30 team members
- Demonstrate adaptability by working around logistical shortages to cater to more than 120 children