

# Kevin Pek Yue Ting

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Seeking summer or 6-month internships from 13<sup>th</sup> May 2024 to 10<sup>th</sup> Jan 2025.

## EDUCATION & AWARDS

**National University of Singapore, B.Sc Data Science and Analytics, 2<sup>nd</sup> Maj. Computer Science** Aug 2021 – May 2025 (Expected)

- **Courses:** Data Structures and Algorithms, OOP, Convex Optimisation, Linear Regression, Data Visualisation, Computer Architecture
- **Grade:** Expected First Class Honors. Awarded Dean's List for AY2022/23 Semester 1.

**Stanford University, International Honors Program**

Jun 2023 – Aug 2023

- **Courses:** CS161 Design and Analysis of Algorithms, CS221 Artificial Intelligence: Principles and Techniques
- 1 of 3 selected applicants to be awarded the SG-US Summer Exchange Scholarship.

## PROFESSIONAL EXPERIENCE

**NUS IORA/NCS Singapore – Research Assistant / Singapore**

Jun 2023 – Dec 2023 (Expected)

- Data visualisation, outlier and changepoint detection on time series temperature and humidity data in data centers using Python.
- Currently using finite volume solvers (FiPy) to simulate and model data center temperature based on known temperature data.

**Global Innovation Catalyst – Data Analyst Intern / Palo Alto, CA**

Jun 2023 – Aug 2023

- Evaluated various sources of company data by sampling and comparing data for 100 startups using Python (pandas, plotly).
- Wrote CRUD endpoints in Typescript for Express server of AI startup that scans pitch decks and extracts relevant information.

**NUS IORA/Singapore Airlines – Full Stack Developer / Singapore**

Aug 2022 – May 2023

- Built and deployed a machine learning powered quiz platform with dashboards, file upload, user management features and JWT user authentication. Developed using React (Material UI) and Express, utilising MySQL and AWS S3 for storage.
- Implemented multi-arm bandit algorithms; epsilon greedy and linear upper confidence bound for question recommendation system within the quiz platform, which was then deployed as a REST API using the FastAPI framework.
- Created a recommendation model interface, enabling easy collaboration and deployment of various algorithms created by researchers, and allowing concurrent sessions within the question recommender API to use different models for prediction.
- Containerised and deployed the platform's applications along with a Nginx webserver on AWS EC2 using Docker and AWS ECR.

**Idemia – Full Stack Intern / Singapore**

May 2022 – Aug 2022

- Developed proof-of-concept for an orchestrator application in Java using the Apache Camel framework and Spring Boot.
- Wrote integration tests for various applications using Testcontainers and Junit5, with load testing using JMeter.
- Optimised inefficient data fetching code in various applications, resulting in 10x reduction in network bandwidth usage.

**NUS IORA – Research Assistant / Singapore**

Apr 2022 – May 2022

- Refactored Python scripts implementing Linear UCB algorithm into a webapp and REST API using Flask and deployed it on Heroku.

**NUS Dept. Biomed Eng. – Game Developer / Singapore**

Feb 2022 – May 2022

- Developed a game in Unity to assist staff with assessing the cognitive capabilities of people suffering from Alzheimer's Disease.

**DSTA – Modelling and Simulations Intern / Singapore**

Mar 2021 – Jun 2021

- Built scalable, high fidelity simulation environments and synthetic data generator in Unity for reinforcement learning projects.
- Utilised Unity's ML Agents package to train neural networks to be used alongside 3D pathfinding algorithm for multi-stage AI system.

## LEADERSHIP & COMMUNITY SERVICE

**NUS Google Developer Student Club – Head of Technology**

Jun 2023 – Current

- Currently leading a team of 5 other developers to create a platform for collaboration between small non-profit organisations and external organisations and companies. I also work with designers and business associates to align with product requirements.
- Tech stack: NextJs (React, RadixUI), Express (Prisma ORM), PostgreSQL, with testing and CI using Playwright and Jenkins.

**NUS Google Developer Student Club – Software Engineer**

Aug 2022 – May 2023

- Revamped website for non-profit and developed internal CMS and payment system using Express, MongoDB, NextJs (React, MUI).
- Setup CICD for automated testing and deployment using Google Cloud Platform and wrote API tests for Cypress.

**NUS Student Union IT Committee, CharITeach – Volunteer Tutor**

Mar 2022

- Taught underprivileged kids basic programming skills by teaching them to make a game using the Scratch programming language.

**42<sup>nd</sup> NUS Rovers Adventure Club – Honorary General Secretary**

Oct 2021 – Oct 2022

- Managed database of 2000+ members and planned and led 8 local and overseas trekking and cycling events with 50+ participants.

**42<sup>nd</sup> NUS Science Club Alumni Relations Committee – Marketing Executive**

Oct 2021 – Oct 2022

- Reached out to various companies for sponsorships for club events and helped organise various club events for school alumni.

## SKILLS & INTERESTS

**Programming Languages:**

Python, R, Typescript, Javascript, Java, Julia, C, C#

**Web Frameworks/Libraries:**

React, Express, NextJs, FastAPI, Flask, Spring Boot, Jest, Cypress

**Data Analysis Libraries:**

pandas, numpy, plotly, seaborn, matplotlib, scikit-learn, dplyr, ggplot

**Technologies:**

Git, Docker, AWS EC2, GCP Cloud Run, Unity, MySQL, MongoDB, Postman

**Interests:**

MLOps, Entrepreneurship, Board Games, Badminton, Computer Graphics

## PROJECTS

**Monday.com AI App**

Jun 2023

- Created app integrating monday.com's API, Telegram's Bot API and OpenAI API to generate messages and schedule them for posting.

**Document Semantic Search**

May 2023 – Jun 2023

- Gradio interface to upload and search PDF files based on semantic similarity. Done using the Langchain Python library.