Kevin Pek Yue Ting

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Seeking summer internships from 13th May 2024 to 2nd Aug 2024.

EDUCATION & AWARDS

National University of Singapore, B.Sc Data Science and Analytics, 2nd Major Computer Science Aug 2021 – May 2025 (Expected)
- Expected First Class Honors. Awarded Dean's List for AY2022/23 Semester 1.
- **Courses:** Data Structures & Algorithms, Object Oriented Programming, Computer Organisation, Convex Optimisation, Regression Analysis, Numerical Analysis, Data Visualisation. Courses I will be taking next semester: Operating Systems, Machine Learning

Stanford University, International Honors Program Jun 2023 – Aug 2023
- Awarded the SG-US Summer Exchange Scholarship.
- **Courses:** CS161 Design and Analysis of Algorithms, CS221 Artificial Intelligence: Principles and Techniques

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.
- Developed Python based temperature simulation of data center cooling system with sparse sensor data using numerical solvers.

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).

NUS IORA/Singapore Airlines – Research Assistant / *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 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, 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 developers to create a platform for collaboration and resource sharing between small non-profits and companies/schools. I also work with designers and business associates to align developers with product requirements.
- Tech used: NextJs (React, RadixUI), Express (Prisma ORM), PostgreSQL, Docker. CICD using Github Actions, deployed on Fly.io.

NUS Google Developer Student Club – Software Engineer Aug 2022 – May 2023
- Full stack development for website revamp and new internal CMS for a non-profit. Tech: Express, MongoDB, NextJs (React, MUI).
- Setup CICD for automated testing and deployment using Google Cloud Platform and wrote unit tests.

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.

42nd 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.

42nd 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, C, C#
Web Frameworks/Libraries:	React, Express, NextJs, FastAPI, Flask, Spring Boot
Data Analysis Libraries:	Python: pandas, numpy, plotly, seaborn, matplotlib, scikit-learn. R: dplyr, ggplot
Technologies:	Git, Docker, AWS EC2, GCP Cloud Run, Unity, MySQL, PostgreSQL, MongoDB
Interests:	MLOps, Entrepreneurship, Board Games, Badminton, Computer Graphics

PROJECTS

Document Semantic Search May 2023 – Jun 2023
- Gradio interface to upload and search PDF files based on semantic similarity. Developed using the Langchain Python library.

N-Body Simulation Jul 2021 – Aug 2021
- Developed in Unity. Used compute shaders to greatly increase the performance of the simulation and number of simulated particles.