

Kevin Pek Yue Ting

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EXPERIENCE

Meta – Fullstack Engineer | *Singapore* Feb 2025 – Present

GymLah – Co-founder | *Singapore* Dec 2024 – Feb 2025

- Developed a booking system for senior gyms in Singapore. Designed and developed landing page.
- **Tech:** Typescript, React, AWS Lambda (Python, NodeJS), AWS RDS (PostgreSQL).

GovTech – Data Science Intern | *Singapore* May 2024 – Oct 2024

- Implemented few-shot learning paper for CLIP models, and trained CV/NLP models for classification task.
- Setup Docker image for training on AWS Sagemaker, and optimized GPU utilization for PyTorch training.
- Wrote data processing and automation scripts using Bash and Python to automate existing workflows.
- Made performance optimisations and bug fixes to service API, reducing inference time by 20%.

NUS IORA/NCS – Data Science Intern | *Singapore* Jun 2023 – Dec 2023

- Exploratory data analysis on time series data in Python (pandas, plotly) in Azure ML Linux server environment.
- Used the diffusion equation and finite volume method to visualise temperature distribution in data centers.
- Trained PyTorch forecasting model and setup batch inference endpoints on Azure ML.

NUS IORA/SIA – Full Stack Developer Intern | *Singapore* Aug 2022 – May 2023

- Designed and developed a learning platform with dashboards, user and model management features.
- Implemented and deployed multi-arm bandit algorithms (epsilon greedy, zpdcs) for question recommendation.
- Deployed entire application stack with Nginx reverse proxy on AWS and on-premises using Docker.

Idemia – Backend Engineer Intern | *Singapore* May 2022 – Jul 2022

- Developed orchestrator application in Java using Apache Camel and Spring Boot.
- Wrote integration tests using JUnit and Testcontainers, and fixed bugs for various applications.

NUS Department of Biomedical Engineering – Game Developer | *Singapore* Feb 2022 – May 2022

- Developed a game in Unity to assess the cognitive capabilities of people suffering from Alzheimer's Disease.

DSTA – AI Engineer Intern | *Singapore* Mar 2021 – Jun 2021

- Built drone flight simulation environment in Unity (C#) for training reinforcement learning models.
- Trained reinforcement learning agents using Unity ML Agents for multi-stage AI system.

EDUCATION & AWARDS

National University of Singapore, B.Sc Data Science, 2nd Major Computer Science Aug 2021 – Nov 2024

- Second Upper Class Honours. Awarded Dean's List for AY2022/23 Semester 1.
- **Courses:** DS&A (A+), Machine Learning, OS (A+), NLP (A+), Information Retrieval, Parallel Computing.

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.

SKILLS

- **Programming Languages:** Python, Typescript, Javascript, C, Java, Swift, R, C#
- **Web Development:** NodeJS, React, Express, NextJs, FastAPI, Flask, Spring Boot, HTML, CSS
- **Machine Learning/AI:** pandas, numpy, pytorch, scikit-learn, huggingface transformers, langchain
- **Cloud/Tools:** Git, Docker, Linux, Bash, AWS, Google Cloud Platforms, Azure
- **Databases:** PostgreSQL, MySQL, MongoDB, SQLite, Neo4j

PROJECTS

bitnet.c – Zero dependency, C implementation of the BitNet paper

- Implementation of neural network with single bit weights based on the BitNet research paper. [Github repo.](#)
- Implemented BPE tokenization for tiktoken based tokenizers, and neural network training on the MNIST.
- Parallelized bit matrix multiplication and neural networks layers using OpenMP to speed up training time.

PDFSearch – *Open-source extension for the MacOS app Raycast*

- Author of app allowing users to search collections of PDF and text files, with more than 750 users. [Github repo.](#)
- Written in Typescript (React, NodeJS) and MacOS Swift packages for document parsing and similarity search.
- Used multithreading to improve search latency for large collections of documents.

Shiftly Staff Scheduler – *Automated staff scheduling for f&b restaurants*

Mar 2024 – Apr 2024

- Done as coursework for DSA3101 Data Science in Practice. [Github repo.](#)
- Developed web-based dashboard and interactive staff schedule planner for restaurant managers. Features include demand forecasting, staff and booking management system, and an automated staff schedule generator.

AcademIQ – *Knowledge graph creation from documents*

Mar 2024 – Apr 2024

- Done as coursework for DSA4213 Natural Language Processing. [Github repo.](#)
- App that uses RAG to extract topic graphs from uploaded PDF documents, stored within a Neo4j database. User can interact with the graph to view summaries, and generate questions based on selected topics.

Toxic Speech Detection on Twitter Dataset

Mar 2024 – Apr 2024

- Finetuned LLaMA2-7B using QLoRA and RoBERTA models on text classification tasks Google Cloud GPU.

Pix2Latex – *MacOS menubar app to run both normal and LaTeX OCR*

Nov 2023

- Python app that runs MacOS OCR engine or pretrained OCR models on selected region of screen. [Github repo.](#)

Document Semantic Search – *Hybrid search on PDF documents using embedding models*

Jan 2023

- Gradio interface to search documents using both semantic similarity and BM25 keyword search. [Github repo.](#)

EXTRACURRICULARS

Open Government Products (OGP) Build for Good Hackathon 2024

Aug 2024 – Nov 2024

- Worked in a team to build a visitation tracking system for eldercare volunteers to support befriending efforts for at-risk elderly. Won SGD 20,000 in funding, and participated in 8-week accelerator program.
- **Tech:** React (Ant Design, UmiJS), hosted on Vercel, with Vercel Postgres and Blob for data persistence.

NUS Google Developer Student Club – Tech Lead

Jul 2023 – Jan 2024

- Led a team of students to build a sharing platform. Stack: Typescript, Express, NextJs, React, shadcn/ui.

NUS Google Developer Student Club – Software Engineer

Aug 2022 – May 2023

- Full stack development, CICD setup using GCP. Stack: Typescript, Express, MongoDB, NextJs (React, MUI).

NUS Student Union IT Committee, CharITeach – Volunteer Tutor

Mar 2022

- Taught underprivileged kids basic programming skills through the process of making a game in Scratch.

42nd NUS Rovers Adventure Club – Honorary General Secretary

Oct 2021 – Oct 2022

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

42nd NUS Science Club Alumni Relations Committee – Marketing Executive

Oct 2021 – Oct 2022

- Prepared prospectus and reached out to organisations for sponsorships for the committee's events.