

LEE Juin

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EDUCATION

Nanyang Technological University, Singapore (NTU)

Aug 2021 – Dec 2024

Bachelor of Engineering (Computer Science)

- Honours (Highest Distinction); CGPA: 4.76/5.00
- Dean's List for Academic Year 2022 – 2023

WORK EXPERIENCE

Temasek Laboratories @ NTU, Singapore

Sep 2023 – Dec 2023

Frontend Software Engineer Intern

- Tasked with developing the NLP Hub frontend dashboard using React and Material-UI to facilitate registration and management of NLP services by administrators, ensuring streamlined accessibility for users.
- Utilized Chart.js to build interactive charts that highlight key platform metrics, including historical query data, top users based on request frequency, and the most utilized services, offering a comprehensive visualization of the platform's dynamics.
- Constructed a React Redux store for comprehensive state management and implemented optimized API calls using custom React hooks, resulting in streamlined data flow, enhanced performance, and improved code readability within the application.
- Created Artillery load testing scripts and conducting ad-hoc testing via Postman to verify the system's capability to sustain a load of up to 3000 concurrent users, ensuring robust performance and scalability of the application.

Temasek Laboratories @ NTU, Singapore

May 2023 – Aug 2023

Backend Software Engineer Intern

- Developed and maintained NLP Hub, a centralized gateway for deploying text, video, and audio-based NLP models, using TypeScript Nest.js as backend framework and MongoDB as database.
- Established a streamlined CI/CD pipeline on GitHub Actions using separate workflow files to compartmentalize testing, building, and deployment processes, enhancing readability, and simplifying maintenance within the development cycle.
- Implemented Redis caching strategy resulting in a significant enhancement of system performance, reducing response times by 45%, optimizing resource utilization, and improving overall system responsiveness.
- Adopted Test Driven Development (TDD) practice and wrote unit tests using Jest that achieved a 90% test coverage.
- Containerized the system using Docker and utilized Docker Hub for image registry and version control.

PROJECTS

NTU Heritage Club Booking System

Aug 2023 – Oct 2023

- Developed a web application for NTU Heritage Club using React and Material-UI, enhancing accessibility and streamlining inventory and venue bookings.
- Implemented serverless architecture via Supabase edge functions and utilized PostgreSQL for persistent data storage.

Personal Website

Aug 2023 – Sep 2023

- Developed using React to present a portfolio of projects, skills, and experiences in an engaging manner.
- Implemented React components for seamless navigation and dynamic content display.
- Ensured responsiveness and optimized user experience for easy accessibility.

FindR: E-commerce Price Comparison Web App

Aug 2022 – Nov 2022

- Managed a team of 5 developers to deliver a full-stack web application using Django, React and PostgreSQL where users can search, filter, and compare prices of items sold on e-commerce platforms.
- Utilized Selenium for web scraping across diverse e-commerce platforms, extracting product data to create essential mock datasets for demonstration purposes.
- Deployed the web app using Azure App Service, ensuring scalability and optimal performance.
- Documented the backend API specifications using Postman to provide clear and comprehensive documentation for developers, facilitating easy integration and future development efforts.

Text Message Sentiment Analyzer

Jan 2022 – May 2022

- Co-created a web app which analyzes the emotions of a text message at a prediction accuracy of 88%.
- Leveraged scikit-learn's built-in algorithms including Logistic Regression, Naïve Bayes, and Linear Support Vector Machine to develop a prediction model, subsequently deploying it on the Streamlit cloud platform for accessibility and ease of use.
- Attained a 1% reduction in margin error through repeated k-fold cross-validation techniques alongside comprehensive Exploratory Data Analysis (EDA) methodologies.

EXTRA-CURRICULAR EXPERIENCES

NTU Investment Interactive Club

Sep 2023 – Present

Web Developer

- Tasked with the development and maintenance of the club's website using WordPress, HTML, CSS, and JavaScript to ensure an engaging and user-friendly online platform.
- Collaborate with cross-functional teams to gather requirements and deploy updates, ensuring seamless operation and accessibility of the club's online presence.

NTU Heritage Club – Heritage Week 2023

Oct 2022 – May 2023

Chairperson

- Organized a successful 2-day flagship event for promoting awareness on Singapore's diverse cultures, drawing in 500 attendees through strategic planning and seamless collaboration efforts.
- Supervised event planning by setting goals and providing support and guidance to committee members.
- Directed a 15-member committee, overseeing sponsorship acquisition, budget allocation, and collaboration with student clubs.

Freshmen Orientation Camp 2023

Aug 2022 – Aug 2023

Vice President

- Organized a 5-day orientation camp aimed at crafting an immersive introduction to university life for incoming freshmen, drawing participation from over 200 attendees.
- Supervised and reviewed event budget planning, ensuring effective allocation and resource management.
- Oversaw publicity initiatives, contributing to successful event promotion and participant engagement.
- Led the programs division through the entire event lifecycle, delegating responsibilities, ensuring seamless coordination, and providing continuous support, culminating in a highly successful and memorable orientation camp for all attendees.

HACKATHONS

ESCENDO 2023 | Finalist | [GitHub Link](#)

- Collaboratively designed, developed, and presented ReadyBex, an RFID-driven automated system, to a panel of Micron experts. The system features a web app providing passengers with real-time notifications on the status of baggage arrivals.
- Implemented with Arduino, Django, React, Streamlit Cloud, Azure App Service.

MLDA@EEE Deep Learning Week Hackathon 2022 | Semi-finalist | [Devpost Link](#)

- Spearheaded and developed an AI-powered application that enhances the learning experience of students by tracking and analyze student engagement in real-time, featuring a high-level chart representation of student engagement levels over time.
- Implemented with Django, Chart.js, React.js, Azure App Service.

SKILLS

Languages: English, Mandarin, Malay

Programming Languages: JavaScript, TypeScript, Java, Python, C, C++

Databases: MongoDB, PostgreSQL, Microsoft SQL, Redis

Backend: Node.js, Express.js, Nest.js, Django, Flask, Nginx

Frontend: React, Material-UI, HTML, CSS

Cloud Platforms: Azure App Service, Supabase

DevOps Tools: GitHub Actions, Docker

AI / ML Libraries: Scikit-learn, OpenCV, pandas

Additional Tools: Linux (Ubuntu), Git, Visual Studio, Visual Studio Code, Artillery, Swagger