Nicholas Peradidjaya

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Portfolio : https://stygian84.github.io | Github : https://github.com/Stygian84

EDUCATION

Singapore University of Technology and Design   **Sep 20 to Present**

- Bachelor of Engineering (Computer Science and Design), Honours
- Focus track: Software Engineering
- Expected Date of graduate: Apr 2024

WORK EXPERIENCES

AEM Singapore Pte. Ltd.   **Aug 22 to Dec 22**
Software Engineer Intern

- Developed a full stack Web user interface with ReactJS for the frontend and ExpressJS for the backend, in JavaScript language aligning with industry trends towards modern web development technologies.
- Engaged in basic PLC programming using IEC 61131 language and the use of TwinCAT software to complement the integration of software with industrial automation systems, reflecting industry demand for versatile skill sets.
- Actively participated in weekly meetings throughout the software development lifecycle to address issues, debug code, and implement new features for the mobile application, while incorporating feedback from stakeholders and ensuring product excellence with attention to detail.

PERSONAL & ACADEMIC PROJECTS

PlantTracker Mobile Web App (Link) | React.js, Express, SQL, AWS   **Jan 24 to Feb 24**

- Design and implement a full-stack web development for mobile web application for real-time monitoring of plant health.
- Integrate seamless connectivity with Raspberry Pi 4 and sensors to gather vital data for analysis.
- Utilize React.js, an innovative JavaScript library, to design a user-friendly and clean interface and improve user experience.
- Utilize Express to handle server-side logic, RESTful API endpoints, and seamless communication with the frontend. Deployment of Node in AWS EC2 free tier.
- Employ PostgreSQL hosted in AWS RDS free tier to efficiently store and manage the vast array of data collected from plant monitoring activities and deploy the web app using Netlify. Reduced the website's loading time by 50% through migrating from noSQL database to SQL database.
- Modular coding for best practices for a scalable development and to improve performance.

Platformer Unity Game Project (Link) | C#, Unity   **Oct 23 to Oct 23**

- Develop a fast-paced 2D platformer game in Unity, utilizing C# programming language under 40 hours.
- Acknowledged as one of the highest-rated games by the professors, it attained an outstanding score of 99/100.
- Implemented Singleton and Observer Pattern in C# to ensure that only one instance of a class is created and to establish a one-to-many dependency between objects, respectively.

Loyalty Program Web App Project (Link) | Javascript, Golang, SQL   **Jun 22 to Aug 22**

- Collaborate with a team of five to build and optimize a loyalty program web application by utilizing Golang for back-end development and JavaScript for front-end UI.
- Implemented comprehensive unit and system testing and utilized SQL to extract data from the PostgreSQL database.
- Optimized queries and modularized the code to enhance scalability and performance, making it easier to maintain and expand.

Online Self Pick-Up Mobile App Project (Link) | Java, Android Studio   **Mar 22 to May 22**

- Collaborated with a team of six in software development to create a mobile application in Android Studio using Java.
- Developed an Android application featuring a responsive interface and an intuitive design, delivering a seamless user experience.
- Implemented navigation features, enhancing user engagement and reducing number of clicks by 20%.

Multi-Modal Data Understanding (Vision+Language) | Python, Pandas   **June 21 to Dec 21**

- Implemented Python machine learning framework, PyTorch and Pandas dataframe for machine learning in determining animals' behaviour and activities. Collected dataset from Youtube videos and pre-processed the data.

Self-Initiated Projects (Link) | Python, OpenCV   **Apr 21 to Sep 21**

- Implemented Python OpenCV library with cascade classifier machine learning algorithm and edge and hsv filtering to detect enemies in a FPS game.

ADDITIONAL INFORMATION

- **Languages:** Python, Javascript, Java, SQL, C, C#, Go, TypeScript
- **Tech Stack:** React.js, Express.js, AWS, PostgreSQL, Firebase, Node.js, jQuery, CSS, Angular, Git, HTML5, Android SDK
- **Proficient in English and Bahasa Indonesia (spoken & written)**

20 October 2023

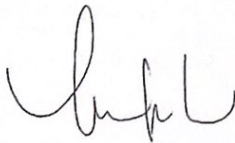To Whom It May Concern

Eligibility for Employment Pass

1   Nicholas Gandhi Peradidjaya G1446010T is expected to graduate from Singapore University of Technology and Design and has a Ministry of Education bond obligation to serve in Singapore.

2   This letter serves to inform you that the Singapore government will exercise flexibility in the assessment of the Employment Pass application of Nicholas Gandhi Peradidjaya. You should also use the Self-Assessment Tool on the Ministry of Manpower's website for an indicative assessment on whether the applicant qualifies for an Employment pass. If your company finds this graduate suitable for a position and makes an Employment Pass application to the Ministry of Manpower (MOM), the necessary work pass arrangements will be facilitated after receiving your submitted application. This is subject to the qualifying notes overleaf (as attached), which includes complying with the Fair Consideration Framework.

3   This letter is supported by the Ministry of Manpower and is valid for 12 months from the date of graduation or date of issue, whichever is later.

4   You may email Daniel Cheong, the Career Coach, at daniel_cheong@sutd.edu.sg for clarification. Thank you.

Yours sincerely,

Angelvin C. Parma
Head, SUTD Career Development Centre

Qualifying notes:

1   The applicant named overleaf is eligible to apply for an Employment Pass if he/she:

        (a)   secures full-time employment in a company of good standing in Singapore;

        (b)   is to be engaged in managerial, executive or specialised job;

        (c)   submits an application for Employment Pass together with certified copies of educational certificates;

        (d)   is not on Government agencies' adverse record.

2   Professionals such as doctors, lawyers, architects, dentists, pharmacists etc. have to register with the relevant professional regulatory body before they are allowed to practise their profession in Singapore. Those who intend to practise their profession would have to seek registration before the Employment Pass is issued.

3   This letter does not exempt employers from the Fair Consideration Framework. This includes the requirement to advertise the job vacancies on the National Jobs Bank before submitting an Employment Pass application. Employers should consider all applicants fairly, regardless of nationality.