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 Jun 24**
- Bachelor of Engineering (Computer Science and Design), Honours
- Focus track: Software Engineering

WORK EXPERIENCES

AEM Singapore Pte. Ltd.   **Aug 22 to Dec 22**
Software Engineer Intern | React, Express, JavaScript, RESTful API

- Developed a full stack Web user interface with ReactJS for the frontend and ExpressJS for the backend, in JavaScript improving productivity by 10%.
- 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, RESTful API, JavaScript   **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 and Material UI 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, React Native   **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)**