Leon Yee Leong Tan

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WORK EXPERIENCE

Application Software Engineer | Emerald Cloud Lab | South San Francisco, CA (Remote Work) November 2021 - January 2024

- Develop, test, deploy and maintain various external and internal applications and enable scientists to design and conduct experiments and research on the cloud.
- Collaborated with the design and scientific teams to develop new features using **NW.js, Node.js, React, Redux, JavaScript, TypeScript, Emotion CSS** and **Wolfram Mathematica** to enhance user experience and improve lab operations.
- Used diagnostic tools such as **Rollbar** and **Honeycomb** to monitor, triage and troubleshoot software related issues to maintain service availability and smooth operation of the lab.
- Handled multiple software releases by incorporating a robust CI/CD pipeline with **Travis CI** and **Kubernetes**, while ensuring high level of quality assurance and effective communication of new features.
- Digitized and developed a comprehensive and intuitive training platform for lab operators, streamlining the training process and reducing onboarding time by 75%, while reducing the workload of training managers.
- Enhanced inventory storage efficiency by developing an interface for the vertical storage system and implemented a robust 'Report Storage Problem' feature, significantly improving storage issues.
- Overhauled the internal application to optimize information display and intuitiveness while improving usability and functionality by redesigning the user interface and integrating innovative features.
- Implemented data mapping to lessen api load and reduced loading time by 90% on a client-facing feature.
- Developed and integrated the autosave feature to significantly reduce the risk of data loss for customers and enhance their user experience.

Software Developer & Project Coordinator | Academy for Surgical Coaching | Madison, WI March 2020 - October 2021

- Plan, design, develop, test, deploy and maintain internal systems and software to provide infrastructure for coaching services. Provided surgical coaching services to 77 surgeons and ran 10 coach training programs.
- Maintained the **Wordpress** website and **MySQL** database with **PHP**, **HTML**, **CSS** and **Python** and developed a user login system using **Agile** Development Methodology to manage and organize records of user profiles and coaching sessions.

IAM Administrator | UW Madison DoIT | Madison, WI April 2020 - November 2020

- Conducted data analysis on activity logs with **Python** to identify key bottlenecks and improve password recovery procedure.
- Automated the manual data entry process for COVID time reporting by writing and testing a **Node** script to help keep track of hours while maintaining team efficiency and productivity.

SKILLS

- **Languages:** JavaScript, TypeScript, Python, Java, C, C#, HTML5, CSS, PHP, Wolfram Mathematica, R
- **Web:** Node, NW.js, Express, React, Redux, Bootstrap, Laravel, Wordpress
- **Tools & Technologies:** Git, Docker, Kubernetes, SQL, MongoDB, Unity, Bash, Unix

EDUCATION

University of Wisconsin - Madison September 2015 - December 2019
B.S. - Double Major in Computer Science and Biology Overall GPA: 3.48/4.00
Relevant Coursework: Algorithms, Operating Systems, Bioinformatics, Databases, Artificial Intelligence, Cryptography

Trine University January 2023 - Current
M.S. - Information Studies Current GPA: 3.86/4.00

SOFTWARE PROJECT EXPERIENCE

Trippee
A full-stack web app for planning group trips among multiple users

- Built a back-end that handles **API** routes, user authentication and data storage with **Node**, **Express** and **MongoDB**.
- Designed and developed front-end components for displaying schedule and trip details with user inputted dynamic data using **React** and **Redux** framework.

Map-Reduce
A MapReduce library on C

- Improved data processing speed by constructing a MapReduce library using **C** that implements multithreading to asynchronously run programming tasks across large datasets.
- Generalized MapReduce programming model by packaging it into a **C** library to make it easier for users to integrate MapReduce into their program.