

Leon Yee Leong Tan

(608) 616-0428 | leontan.se@gmail.com | Denver, CO

LinkedIn: [linkedin.com/in/leon-yl-tan](https://www.linkedin.com/in/leon-yl-tan) Github: github.com/LeonTan828 Website: leontan828.github.io/personal-website-2.0/

WORK EXPERIENCE

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

- Developed, tested, deployed and maintained various external and internal applications and enabled scientists to design and conduct experiments and research on the cloud.
- Improved lab item recommendation relevancy, contributing to a 30% uplift in click-through rate, by identifying key input factors such as user geographic location and apparatus affinities for the scientific team's ranking algorithm.
- 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.
- Optimized data loading in a client-facing notebook feature by normalizing tree node structures via an ID-based tree repository, replacing a large monolithic API payload with lightweight references and on-demand hydration to achieve a 90% reduction in loading time.
- Redesigned a monolithic widget system into a modular architecture, resulting in faster load times and improved scalability, readability, and maintainability.
- Developed web tools with **React.js** and **NW.js**, using **Redux** to implement robust features like autosave in a scientific notebook app, enhancing user reliability and data persistence.
- 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.

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

- Planned, designed, developed, tested, deployed and maintained 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, REST API, 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.