

Leon Yee Leong Tan

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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

PROJECT EXPERIENCE

Trippee

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

- Built a backend that handles API routes, user authentication and data storage with **Node**, **Express** and **MongoDB**.
- Designed and developed a clean-looking front-end with **React** and **Redux** framework.

MusicPear

A music social media program that allows users to save, manage and share their playlists with other users

- Optimized **MySQL** database by designing schemas for user profile and music playlists for data retrieval from user interface.
- Built database connection solution and queries in **Unity** app to facilitate data storage and interaction using **C#** and **PHP**.

Personal Website - <https://leontan828.github.io/personal-website/>

- Implemented a single page web application to display personal information by building and hosting a responsive website using the **Bootstrap** framework in **React.js**, **HTML** and **CSS** for faster development time by utilizing custom components.

Exon-Intron Predictor

A machine learning program that models pre-mRNA structures

- Implemented supervised learning Hidden Markov Model based on unobservable pre-mRNA state sequences with **Python** that contributes to genomic annotation of microorganism species by accurately predicting the exons-intron locations.

Map-Reduce

A MapReduce library on C

- Improved data processing speed by constructing a MapReduce library using **C** to asynchronously run parallelizable 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.

WORK EXPERIENCE

IAM Administrator | UW Madison DoIT | Madison, WI

April 2020 - Present

- Participate in the design, testing, debugging and documentation of IAM systems and operating environments.
- Revise existing solutions to meet the growing needs of the University and industry best practices.

Data Entry and Web Research | Academy for Surgical Coaching | Madison, WI

March 2020 - Present

- Managed user data on Zoho CRM in orderly manner by designing workflows and best practices for the organization.
- Expedited data entry and reduced manual workload by automating various processes using **Deluge** script.

Research Data Analyst | UW Madison | Madison, WI

June 2019 - September 2019

- Progressed research efforts by providing valuable insights and results through processing and analyzing public crime data in Madison using **Python**.
- Identified crime hotspots in Madison by visualizing crime data on the map and animating it using matplotlib to show changes across time.

Junior Developer | UW Madison DoIT | Madison, WI

April 2018 - September 2018

- Retained high website availability by performing routine maintenance using **JavaScript**, **PHP** and **GitLab**.
- Refactored a scheduling tool, that supports work hours scheduling, with **JavaScript** and **PHP** to improve the stability and reliability of the tool.

SKILLS

- Languages:** Java, Javascript, Python, C, C#, HTML5, CSS, PHP, R, Deluge
- Web:** Node, Express, React, Bootstrap
- Tools & Technologies:** Git, SQL, MongoDB, Unity, Bash, Unix