Lung Hao Tung

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WORK EXPERIENCE

Software Engineer | *Co-Diagnostics, Inc*

June 2024 – Present

- Built a cross-platform mobile application using Flutter and Dart to connect with a medical instrument via Bluetooth, incorporating Hasura for database interactions. Created 3 app variants for clinics, households, and doctors.
- Identify issues and provide concurrency solutions that prevent heavy computations that block the UI isolate.
- Redesigned the demo user workflow to support offline functionality by implementing SQLite queries for storing approximately 100 critical data locally, enabling seamless offline analysis and experimentation.
- Addressed bugs and implemented new features, including locale-based updates, improved user search functionality (enhancing usability by 35%), and managed GQL connections for data insertion and updates.
- Collaborated with a cross-functional team of approximately 11 members, including engineering, firmware and manufacturing.
- Optimized app performance by 60.8% UI isolate and 50.9% Raster isolate with DevTools Performance tool to avoid jank.

Web Developer & User Experience Assistant | J. Willard Marriott Library

June 2023 - May 2024

- Resolved **70**+ website-related issues reported by library employees using Jira project management software. This includes adding elements and editing pages, utilizing WordPress and Omni CMS.
- Implement custom PHP functions to enhance website functionality, resulting in improved user interactions and efficiency.

PROJECT

UBetterSurplus | Web Application

October 2023 – January 2024

- Delivered efficient Web Application using React, JavaScript, C#, Entity Framework Core and ASP.NET Core, integrating a responsive and visually appealing user interface through Figma and Fluent UI Design principles.
- Established secure user authentication features with JWT (JSON Web Tokens) and BCrypt.
- Developed Python data extraction system that automatically captured approximately **600** real-time inventory items from frequently updated University surplus PDF files, converting unstructured documents into a searchable MySQL database that eliminated manual processes and provided immediate access to inventory information.
- Created detailed DBML and Entity Relationship (ER) diagrams to map and normalize database architecture, implementing optimized index patterns and structured table relationships that minimized query complexity and accelerated data retrieval operations across the application.

Graduation Points (GP) | *Mobile Cross-Platform Application*

October 2020 – May 2021

- Collaborated with 4 student researchers as the lead programmer and constructed an application that helps students to find information regarding the graduation requirement (PCCU-Passport) efficiently.
- Engineered a data pipeline using SQLite for local storage and Python tools (ChromeDriver and Beautiful Soup) that extracted 50+ graduation events from school website data, converted them into clean .csv format, and uploaded the data to Firebase.
- Designed the history function that allows users to record past activities and store photos, and the add-to-favorites function enables users to save preferred activities.

EDUCATION

MS. Software Development

University of Utah | School of Computing

August 2022 – May 2024 GPA: 4.0 / 4.0

BS. Information Communications

Chinese Culture University | College of Journalism and Mass Communications

September 2018 – June 2021

GPA: 3.75 / 4.0

SKILLS & TECHNICAL TOOLS

Languages: Python, Dart, JavaScript, C#, Java, Kotlin, HTML, CSS, Swift

Technologies: Flutter, React, Firebase, MySQL, SQLite, GraphQL, Git, JSON, Figma