

HONGTAO ZHANG

✉ hzhang784@wisc.edu · ☎ (608)960-6817 · in hongtao · Github: taooceros

🎓 EDUCATION

University of Wisconsin Madison

Madison, WI, 12/2024

B.S. in Computer Science, Mathematics, Statistics, Data Science · *L&S Honors*

GPA: 4.0/4.0.

👤 EXPERIENCE

Flow Launcher | Github Open Source Project | 1.8k ★

10/2020 – Present

C# (.Net Core) Member

A plugin-driven launcher for Windows that help users to quickly launch apps, explore file/folder, and customizable functionalities with plugins.

- Optimized display machanism to prevent freezing when processing large scale of results (10000+).
- Redesigned communication protocol with plugins written in other language with **JSONRPC** Protocol.
- Rewrote plugin parallel co-routine model and Revised Asynchronous Event Loop system with Producer/Consumer Model.
- Designed and Implemented Extendable Highlight Mapping API transferring Pinyin query match to highlight displayed in Chinese with Range Binary Search to allow Pinyin user to understand the query match.
- Refactored UI Component with **WPF** MVVM. Expanded 20+ external API to provide more flexibility to plugin authors.
- Organized community activities (Answer Issues/Discussions, Review Pull Requests, Draft Future Routes).
- Constructed and Managed the Translation CI/CD with *Crowdin*.
- ★ increased from 180 to 1.8k.

Flow.Plugin.WindowWalker

01/2021 – Present

C# (.Net Core), Maintainer

A Plugin of Flow Launcher to switch between opened windows.

- Implemented Quick Window Search to allow customizable query, and allowed user to close specific window by hotkey.
- Utilized FuzzySearch API from Flow Launcher to provide better and more integrated search experience to user.
- Achieved Localization based on .Net Resources (Resx) file and Improved Performance by 30%.
- Designed CI/CD with **Github Action** (widely used in other plugins).

Flow Launcher PluginsManifest

01/2021 – Present

Plugin Management Repository for Flow Launcher

- Designed the CI/CD with **Github Action** to auto fetch plugin update information, and review new plugin submission PRs.
- Utilized CDN from *jsDelivr* to optimize network access toward icons of plugins.

Flow Launcher Docs

05/2021 – Present

Document Websites for Flow Launcher Based on *docsify*

- Revised styles. Wrote tutorial and document, and generated API Reference for .Net plugin development.

VMawalk

06/2020 – 01/2021

HTML/CSS/JavaScript/C# Individual Project, collaborated with in Jeffrey Yu and in Peng Qiu

A peer-review platform for teachers and Courses for Vanke Meisha Academy.

- Constructed and Managed the **MS-SQL** Database. Utilized **Entity Framework Core** to implement the Data Access Layer.
- Implemented the BackEnd Restful API (**ASP.Net Core**) and User Management System Based on **JWT**.
- Implemented FrontEnd Pinyin and Acronym Fuzzy Search and Front-Back Communication with **JQuery**

⚙️ SKILLS

- **Programming Languages:** C, C++, Python, Java, Go, JavaScript, TypeScript, R, Matlab, HTML, CSS, \LaTeX
- **Framework & Tools:** ASP.NET Core, Blazor, WPF, Sql-Server, Vue.js, React.js, Chakra UI, Qt, Node, Express.js, Django, Flask, Graphene, SQLAlchemy, Web Crawler, Pandas, Jupyter, Axios, JQuery, Nginx, Unicorn