Hongtao Zhang

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🎓 Education

University of Wisconsin Madison *Madison, WI*, 12/2024

B.S. in Computer Science, Mathematics, Statistics, Data Science·
GPA: 4.0/4.0.
L&S Honors
Deans List: 2021 Fall/Spring, 2022 Spring

👥 Experience

Flow Launcher | Github Open Source Project | 2k ★ 10/2020 – Present

C# (.Net 6)   Member

A plugin-driven launcher in that quickly launch apps, explore file/folder, and customizable functionalities with plugins.

- ★ increased from 180 to 2k+.
- Revised UI Batch Update Logic to allow processing large scale of results (10000+).
- Imposed *Producer/Consumer* Model with **Channel** to resolve *sync* over *async* dataflow issue
- Resolved UI Freezing for Inter-Process plugins by implementing asynchronous streaming infrastructure.
- Designed extendable and efficient Language Mapping API to allow appropriate highlight for multilingual query.
- Refactored UI Component with ***WPF*** MVVM. Expanded 20+ external API to provide more flexibility to plugin authors.
- Designed the CI/CD with ***Github Action*** to auto update plugins manifest information hosted in Github.
- Wrote Plugin Development Guide for .Net plugins.
- Community Contribution: Answer Issues/Discussions, Review PRs, Draft Future Routes, Help New Contributors.
- Constructed and Managed the Translation CI/CD with *Crowdin* allowing easy contribution of Internationalization.

☰ Project

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).

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, Gunicorn