

# Jingxian Chen

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Objective: **Software Engineering Intern**

## EDUCATION

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### University of Washington

Seattle, WA

*Master of Science in Electrical Engineering*

*Sept 2023 – June 2025*

### South China University of Technology

Guangdong, China

*Bachelor of Science in Information Engineering*

*Sept 2019 – May 2023*

- **Relevant Courses:** Programming in C++, Data Structures, High-level Language Programming Design, Software Engineering, Microcomputer System and Interface Technology, Python Programming Language Foundation, Computer Networks

## SKILLS

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- **Programming Language:** Python, C#/C++, Matlab

## PROJECTS

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### Solutions Of 6G Deterministic Networks | *Python*

**Feb 2023 – Jun 2023**

- Using *Python* to simulate TSN network scheduling, a scheduling solution based on gated list is proposed. This method can be used as a basic scheduling tool for network scheduling.
- Using *Python's Networkx* and *Matplotlib* library to generate random topology of TSN and random traffic, both of which make the solution more generic.
- The optimal path set is obtained by using *Yen's K shortest path* algorithm, and one of the paths is randomly selected as the path. As a result, the running time of network scheduling is reduced.
- Using *Python's Z3* library to solve the constraint system of network scheduling, the network scheduling scheme is obtained, and the network scheduling time is reduced by about 30%, and the number of schedulable streams is increased by about 40%.

### Text Analysis of Weibo Data | *Python*

**May 2022 – Aug 2022**

- Completed a user industry portrait analysis based on Weibo user data, to explore the satisfaction of users (programmers) in the technology industry with respect to their careers; crawled users' Weibo content in the past year based on their user IDs.
- Used *Python's Jieba* library to extract user keyword generation data and completed word frequency analysis on the text data; Completed visualization analysis through *WordCloud* and *Matplotlib* libraries.
- Implement the *SKEP* model to process Chinese text by word granularity, and used *PaddleNLP's* built-in *SkipTokenizer* to complete the one-click processing.
- Implemented a bag-of-words model with weights, etc. for vectorization, and trained with a linear regression model based on the distribution characteristics of the feature vectors.

### Supermarket Information Management System | *C#, MySQL*

**May 2020 – Jun 2020**

- Designed a supermarket information management system that displays a menu interface.
- Used web technology to design the pages and controls, used *C#* language to complete the code logic.
- Realized the connection with *MySQL* database through *MySQL* extension interface of *C#*, proposed the data storage solution and information management technology solution, and planned the matching information management functions.

## PROFESSIONAL EXPERIENCE

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### Hardware Engineer Intern

**May 2022 – Aug 2022**

*Guangzhou Daoyuan Electronic Technology Co., Ltd.*

*Guangzhou, China*

- Investigated and decomposed the hardware product specifications and requirements according to the system requirements.
- Outputted hardware overall plan, hardware detailed design and other deliverables; completed hardware functional safety testing and outputted functional safety test report deliverables.
- Led the design of circuit schematics, outputting schematics, hardware and software interface documents and other deliverables.
- Checked materials, and completed datasheet search and collection.