

Information

Name: Weijie Jiang

Age: 22 years old

Gender: Male

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Education

Sep 2021 - Present

Shanghai Maritime University

Computer Science (Bachelor)

GPA: 3.83/4 (rank:3/108)

Major Courses: Object-oriented, Algorithm, Data Structure, Operation System, Principles of Computer Organization, JAVA, C/C++, Python, Calculus, Linear Algebra, Probability Theory, Mathematical Statistic

Honors & Awards

- **Bronze medal in the Hangzhou division of the ICPC Asia Regional Contest**
- Third prize in the National College Student Mathematics Competition
- First-class Scholarship and Outstanding Students at Shanghai Maritime University

Internship experience

Feb 2024 - Present

IntuitiveFosun

R&D Intern

Company Website: [直观复星 - IntuitiveFosun \(intufosun.com\)](https://www.intufosun.com)

IntuitiveFosun is a medical device technology company focused on precision healthcare. We specialize in providing products and services such as the Da Vinci Surgical System, minimally invasive surgical tools, and more. Our aim is to offer safe and effective tools for surgical diagnosis and treatment in China and around the world.

My role primarily involves participating in and assisting with the development of peripheral software for the Da Vinci robot at the company.

Our company operates in an all-English work environment.

Projects

Jan 2024 - Present

Ink Trace

Leader & Full Stack Developer

The project "Ink Trace" is a participant in the China National College Student Computer Application Ability Competition, offering users a chance to create calligraphy artworks through a DIY platform.

- Setting up the overall project using the Flask framework to handle frontend, backend, and database interactions.
- Designing frontend UI using HTML, CSS, and JavaScript, with JavaScript handling user mouse events to achieve DIY calligraphy effects.
- Utilizing MySQL for database management, storing user information and artwork data.
- Implementing image processing operations on calligraphy artworks using cv2 and numpy, including segmentation, thinning algorithms, and skeleton optimization.
- Designing a thread pool and employing multithreading techniques to accelerate the extraction of calligraphy artwork skeletons.
- Incorporating image processing algorithm knowledge throughout the project, such as grayscale conversion, binarization, image segmentation, and breadth-first search-based algorithms.

You can find the project's GitHub repository, which is still under development, at:

github.com/FIammminING/Stroke_Recognition

Tech Stack: Python, cv2, numpy, Flask, HTML, CSS, JavaScript, MySQL, Thread Pool, Image Processing Algorithms

Mar 2023 - Present

Muscle movement and function analysis

Leader

National-level college student innovation and entrepreneurship project hosting approved.

- Utilizing Python with the cv2 and numpy libraries to binarize muscle movement videos and convert them into grayscale videos.
- Employing frame differencing method to detect intense muscle movements within the videos.
- Implementing sparse optical flow algorithm to track muscle movements, capturing displacement and direction, and ultimately assessing the fatigue status of the target muscles based on this data.

Tech Stack: Python, cv2, numpy, frame differencing algorithm, optical flow algorithm

Sep 2023 - Dec 2023

Apartment Management System

Leader & Full Stack Developer

The primary significance of this project is to design a convenient and concise management system for handling various affairs in university dormitory buildings.

- Designing the theoretical model of the database based on principles and application knowledge of database theory.
- Creating the backend database using SQL Server.
- Linking the backend database based on the .NET framework and designing the frontend UI interface.

Here is the open-source project repository, which includes the .NET framework part of the code:

github.com/FIAmmmmiNG/Apartment_Management_System

Tech Stack: C#, .NET, SQL Server

Sep 2023 - Nov 2023

PictureHub

Leader & Front-end Engineer

A large-scale image collection platform is designed to curate exquisite images and publish them on the webpage for users to upload, download, and share their works.

The project is built using HTML5, CSS, and JavaScript languages to create a sophisticated front-end user interface.

The interactive interface includes advanced artistic effects such as image carousel and fading transitions.

Additionally, a user submission interface is designed where submitted works are uploaded to the backend database.

Tech Stack: HTML, CSS, JavaScript

Campus experience

Sep 2022 - Present

Shanghai Maritime University Computer Association

member of the Algorithm Department

Shanghai Maritime University Computer Association mainly shares knowledge related to computer science. I am a member of the Algorithm Department of the Computer Association. My main tasks include participating in daily algorithm training. The main online training platforms include Codeforces, AtCoder, NowCoder, and other algorithm competition platforms. I also participate in various algorithm competitions such as Baidu Star, ICPC Regional Contest, and the Lanqiao Cup Algorithm Competition.

I have conducted lectures on the use of C++ STL containers for all students of the School of Information Engineering at Shanghai Maritime University.

Sep 2021 - Jun 2022

Student Union

Cultural and Sports Department Officer

The main responsibility is planning and implementing school basketball matches, singing competitions, and other cultural and sports events.

Achieved the title of outstanding officer during the collective training task of the Student Union in June 2022.

Skills

Key Skills: Excellent ability in algorithm design and analysis, solid foundation in data structures. Proficient in programming in C++ and experienced in algorithmic competitions. Familiar with the C++ programming environment and adept at utilizing various methods and underlying principles of C++ STL containers.

Language: CET-6 500+, excellent English reading skills

Professional Skills:

- Proficient in object-oriented programming languages such as C++, Java, and Python, with over 2 years of programming experience
- Familiar with the usage of Git and proficient in Markdown editing
- Proficient in using Google, ChatGPT, and other information retrieval tools
- Excellent algorithm design skills