

Bruce Lee

Personal Details

Gender: Male

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Current Address: San Diego, CA, USA 92122

Academic Background

09/2020-05/2024(expected) **University of California San Diego** - La Jolla, CA, USA

Bachelor of Science

Computer Science

Overall GPA: 4.0/4.0 Major GPA: 4.0/4.0

Relevant Coursework:

- Advanced Data Structures
- Computer Graphics
- Software Engineering
- Design & Analysis of Algorithm
- Theory of Computation
- Linear Programming

Internship

Tsinghua University, Beijing, P.R. China

July 2023 – September 2023

Institute of High Performance Computing (IHPC), Department of Computer Science and Technology

Research Assistant

Project: AIGC System Building - Pre-training Large Multimodal Models Through Parallel Training Techniques

- Research Part: Manipulates two major parameters, to make the Clip model training retain its high throughput while minimizing the GPU memory cost
- Optimized 35.4% of GPU memory cost with ZeRO, while maintaining throughput to increase 2.09 units of data samples by manually improving batch size and turn on communication overlap
- In the development of AIGC systems, optimizing Clip models' memory cost with as little loss of performance (throughput) as possible

Project & Research Experience

University of California San Diego, La Jolla, CA, USA

March 2023 – June 2023

Research Assistant - *Software Development and Java Development*

Project: Voice Input ChatGPT and Web Server

- Use Java to make a GUI including voice input questions and commands, including voice commands such as asking questions, deleting questions and sending emails
- Use API for ChatGPT and Whisper to convert the user's voice questions into text and answer questions
- Build a Web Server to enable the software to log in to multiple platforms, and use MongoDB as a database to store user names, passwords and question history records

University of California San Diego, La Jolla, CA, USA

February 2023 – March 2023

Project Creator

Project: Huffman Coded Data Compression

- Use C ++ to complete the following contents:
 1. Calculate the frequency of each character in the input data
 2. Build a binary tree where each leaf node represents a character and its frequency
 3. Assign a binary code to each character in the tree
 4. Encode the input data using binary coding and output the compressed data
 5. Use a binary tree to decompress the compressed data and output the original data
- Use file header and tree serialization to store binary tree structure

Awards and Honors

Provost's Honors for 7 times

Skills and Competencies

- Programming: Java, C, C++, R, Matlab, Assembly
- Language: TOFEL 106
- Strong understanding of algorithms, data structures, and software design principle
- Ability to design, develop, and test software applications to meet business requirements
- Ability to work independently or in team environment, and to learn new programming languages and technologies quickly