Self-Recommendation Letter

Dear Professor Huang,

I hope this email finds you well. My name is **Zhang Guoliang**, and I am writing to inquire about potential openings for graduate students in your research group and to recommend myself. I am deeply interested in the **multimodal large model** research direction that your group focuses on, and I have heard great things about the positive research atmosphere and high academic standards within the team. I sincerely hope to pursue my **master's degree** under your guidance. Below is my personal information:

Undergraduate Institution: Jilin University

Major: Software Engineering

Applied Program: School of Computer Science and Technology, Beihang University

Major: Software Engineering

Preliminary Exam Scores (Total: 351)

- Mathematics I: 115
- 806 Comprehensive Fundamentals of Computer Science: 106
- English I: 63
- Politics: 67

Personal Strengths:

I am an optimistic, approachable, and resilient individual who remains undeterred by challenges. Equipped with a **solid foundation in computer science**, I have acquired extensive knowledge in **deep learning** and gained insights into cutting-edge directions such as **multimodal understanding, generation, and large language models (LLMs)**. I am proficient in tools including **GitHub, Hugging Face, and Zotero**, and well-versed in model architectures such as **CNN, ViT, Transformer, CLIP, BLIP, and LLaVA**. I have hands-on project experience in related fields and proactively search for and conduct in-depth studies on relevant papers through **Google Scholar**.

Graduate Study Plan:

If fortunate enough to join your research group, I aim to accomplish the following goals over three years of graduate study:

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First Semester of Year 1: While completing coursework, I will actively participate in group meetings, deliver regular reports, align with the research direction of the group, learn from senior colleagues, conduct extensive literature reviews, lay a solid theoretical foundation in the research area, and develop a comprehensive understanding of the field.

◦ Second Semester of Year 1 to First Semester of Year 3: Focus on in-depth research in the specialized direction, strive for academic outputs including publications in **CCF A-tier conferences**, expand knowledge across related domains, and actively contribute to the development of the research group under your supervision.

◦ Year 3: Closely cooperate with your arrangements and university requirements, complete the **master's thesis** with dedication, and successfully graduate.

Project Experience:

1. **FoodVision: Constructing ViT for Visual Multi-Class Classification**

This project involved building a **Vision Transformer (ViT)** from scratch to implement visual multi-class classification on the FoodVision dataset. The workflow included full-model construction, training, and inference, with performance enhancement through **transfer learning**. The final model is deployable for practical applications.

2. **Fine-tuning BLIP2 for Visual Question Answering (VQA)**

Fine-tuned **BLIP2** on a specific image dataset to improve performance in image-to-text generation tasks. Leveraged **Parameter-Efficient Fine-Tuning (PEFT)** with **LoRA** to reduce computational resource requirements. The project covered the entire pipeline from data loading, model loading, and training to inference, and the fine-tuned BLIP2 was ultimately applied to **VQA tasks**.

3. **Building LLaVA-VQA System Based on CLIP and Qwen**

Developed a **LLaVA model** integrating **CLIP** and **Qwen**, and implemented a web-based VQA system using **Streamlit**. The system combines CLIP's visual-language representation capabilities with Qwen's language reasoning abilities to generate accurate answers by inputting images and questions. The project encompassed the complete workflow of data preprocessing, model construction, training, inference, and deployment.

Thank you for taking the time to review my application. My detailed resume is attached for your reference, and I eagerly anticipate your response.

Wishing you good health, smooth research progress, and a pleasant life!

Sincerely,

Zhang Guoliang

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（注：文档部分内容可能由 AI 生成）