# WEIKAI HUANG

### Seattle, WA

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#### Education

## University of Washington

Sep. 2023 – June 2027

Bachelor of Science in Computer Science (Prospective)

Seattle, WA

GPA: 4.0 Related Courses: CSE455: Computer Vision, CSE599: Data-centric ML, CSE498: Undergrad Research

# Research Experience

UW CSE RAIVN Lab Oct 2023 – Present

Research Assistant (Mentored by: Prof. Ranjay Krishna, PhD students Jieyu Zhang and Zixian Ma)

Seattle, WA

- Project 1: Benchmark for Tool-Use Ability in Large Language Models (LLMs) (ECCV 2024 submission)
  - \* Creating a Dataset for Testing Tool-Use Ability in LLMs.
  - \* Designing New Evaluation Criteria Based on Execution Results.
  - \* Programming with Pytorch, HuggingFace, Autogen framework.
- Project 2: Benchmark for Visual-Question Models
  - \* Designing a new dynamic benchmark for visual-question models like GPT4v, Blip, LLaVA, Qwenvl, etc
  - \* Runnning experiments on over 50 GPUs at AI2 cluster and UW Hyak clusters
  - \* Generate tasks from both real and synthetic sources, including 2D and 3D scenarios.

# UW CSE Interactive Intelligence(I2) Club

Oct 2023 – Present

Research Lead

Seattle, WA

- Leading AutoGen MathGPT Project
- Enhancing GPT-4 in Solving Math Problems with Multi-agent Framework
- Project has been selected for presenting on the UW CSE I2 Club's official website as a major research project

# UW Medicine Natural Language Processing for Oncology Research

Sept. 2023 - Oct. 2023

Undergraduate Researcher (Mentored by Prof. John Kang)

Seattle, WA

- Using state-of-the-art NLP models like Bert, GPT to analyze research trends and funds distribution for top conference: Astro (American Society for Therapeutic Radiology and Oncology)
- Full stack researching including collecting and cleaning dataset, selecting models, training model to result data analysis

## Leadership / Extracurricular

# Reserach Project Leader for UW CSE Interactive Intelligence(I2) Club

Oct 2023 - Present

Research Lead

Seattle, WA

- Leading AutoGen MathGPT project"
- Communicate with club organizer and presentation in weekly research meeting
- Co-work with several UW CSE and Math students and Volunteers from Pasedena City College

#### Awards

# United States of America Computing Olympiad(USACO)

2023

 $Gold\ Prize$ 

Seattle, WA

- Ranking top 5% over 2000 contestants
- Design and implement several graduate-level algorithms and data structures like: Complicated Dynamic Programming, Red-Black tree, and Segment tree to solve complicated computer science problems

# National Olympiad in Informatics in Provinces(NOIP)

2021

 $First\ Prize$ 

Fujian, China

- Ranking top 1% over 100000 contestants
- The most famous programming contests in China, solving complicated 4 quizs within 4 hours with algorithms implemented by C++

### Skills and Communication

**Technical**: Python, Pytorch, HuggingFace, Java, C++, JavaScripts

Language: English, Chinese(Mandarin, Hokkien)