

# JUNXI YAN

Department of Computer Science and Technology  
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## EDUCATION

**Tsinghua University, Undergraduate**

B.S. in Computer Science and Finance

Beijing, China

Sep. 2021 – Present

- GPA: 3.67/4.00
- Member of **THU Natural Language Processing Group**, advised by **Prof. Zhiyuan Liu**.

## PUBLICATIONS

1. **Tool Learning with Foundation Models** (<https://arxiv.org/pdf/2304.08354>)

Yujia Qin, Shengding Hu, Yankai Lin, ... **Junxi Yan**, ..., Maosong Sun. ArXiv 2023.4.

## RESEARCH EXPERIENCE

**1. THUNLP, Tsinghua University**

Research Assistant to Professor **Prof. Zhiyuan Liu**

Beijing, China

Aug. 2022 – Present

**LLM-driven AI agent (XAgent):**

- Released XAgent, an autonomous agent for complex task solving; Enhanced consistency, stability, and human-agent interaction; Beat GPT-4 and current pioneering projects (e.g. AutoGPT) on various math, code, QA benchmarks.

**Tool learning with foundation models:**

- Formulated a tool learning framework: from understanding user instructions, foundation models learn to decompose complex tasks, adjust plans through reasoning, and conquer sub-tasks applying appropriate tools.

**Objectllama:**

- Llama model with strong function calling capabilities, proficient in handling complex tasks involving the invocation of various functions, interfaces, and tools.

**2. Tsinghua University (Department of Computer Science and Technology)**

Team member of the Software Engineering course.

Beijing, China

Mar. 2023 – Jun. 2023

**Instant messaging system(DMail):**

- Built a mature instant messaging system product in the span of one semester. Explore the feasibility of deploying a personal communication system anytime, anywhere, and delved into the rules and boundaries that software engineering projects should adhere to.
- Selected the best project for the Spring 2023 Software Engineering course.

## WORK EXPERIENCE

**THUSAST (Student Association for Science and Technology)**

Executive Assistant of the Events Department

Beijing, China

Oct. 2021 – Aug. 2023

- Assisted the chair and the head of the events department in organizing dozens of school - level science and innovation events in two years, including but not limited to the Tsinghua University Big Idea Challenge, Drone Competition, the THU Challenge Cup Academic Competition, and a software design competition in cooperation with Shaoxing local government.
- Primarily responsible for assisting with planning and event organization.

## ADDITIONAL INFORMATION

**Additional Professional and Extracurricular Experiences**

- Member of the Basketball Representative Team of SEM (School of Economics and Management), Won the 2022 THU Ma Yuehan Cup championship, the first championship in the past 16 years.

**Interests**

- Tool learning and tool creation of LLM; LLM-driven AI agent, embodied AI;
- Intersection between Computer vision and robotics

**Language Skills**

- TOEFL 101/120 (Reading 29, Listening 28, Speaking 21, Writing 23).
- Pass the CET4 (College English Test- Band 4)
- Basic knowledge of Greek; Completed the course Greek (Second Foreign Language)

**Technique Skills**

- Proficient in C/C++, Python, JavaScript, Linux, Latex, Stata.

- Familiar with various neural networks and state-of-the-art deep learning techniques.
- Proficient in WORD, PPT, excel and other office software, able to arrange and process documents and other practical skills.