

# DIJKSTRA LIU

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6515 Wydown Blvd  
St. Louis 63105

First-year computer science students seeking internship and research programs in computer science. Key skill includes proficiency in algorithms and data structures, Java/C++/Python, TensorFlow/Pytorch, MATLAB, R, Git, and PHP/MySQL.

## EDUCATION

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**Washington University in St. Louis**  
Bachelor of Science in Computer Science  
Expected Graduation: May 2026

St. Louis, MO  
**GPA 4.0/4.0**

**Capital Normal University High School**  
Graduated with Honors

Beijing, China  
May 2022

## COMPUTER SCIENCE EXPERIENCE

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### **Dijkstra's IT blog**

**Founder**

2017 to present

- Writing a personal IT blog and publishing articles on introductory programming algorithms and data structures, which gained >200k views.  
<https://www.cnblogs.com/dijkstra2003>

### **Capital Normal University High School IT Club**

**Founder & Leader**

2019 to 2022

- Gave 150+ lectures on programming algorithms and data structures to High School students, 10 of whom placed high in the National Olympiad in Informatics finals. Recruit 20 members to expand the teaching program during the past three years.

### **Computer Science Elite Program**

**Researcher**

2021 to 2022

- Selected (10 of 600 students) to study at the Beijing Institute of Technology. Learned TensorFlow Machine Learning and NLP. Programmed an AI that can generate music.

### **Washington University in St. Louis Computer Science Engineering Department**

Teaching Assistant

2023

- Being TA at WashU CSE247 Data Structure and Algorithms, holding studios and answering students' questions.
- Holding weekly studios to help students have a better understanding of algorithms.

## LEADERSHIP EXPERIENCE

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### **Student Union in CNU High School**

President and House Prefect

2020 to 2022

- Negotiate with school leaders on issues such as athletic court access and using electronic devices on campus. Founded the Anonymous Suggestion box.
- Leading the house of 100 students to win the House Cup that was lost for eight years.

### **English Debate Club in CNU High school**

Club President

2021

- Practice speech and writing persuasion skills e.g., logos and ethos. Demonstrated ways to assess the logic of opponents' arguments and claims critically.
- Applying the skill of public speaking to Triple the number of people in the Club.

### **Spotlight Drama Club**

Director and Lead Performer

2021 to 2022

- Direct and star as the lead in classic dramas e.g. Hamlet. Teach members to use body language, such as facial expressions, for emotional effect.

## TECHNICAL SKILLS

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- Skillfully use algorithms like MST, Binary Search, Dynamic Programming... Deep understanding of Graph theory algorithms like Dijkstra, Ford-Fulkerson, and Tarjan...
- Proficient in using data structures like Queue, Linked List, Red-Black Tree, and Segment Tree...
- Be able to use Java and C++ to develop programs and software.
- Using PHP, MySQL, HTML, CSS, JavaScript, and Linux commands to develop websites.
- Be able to use Python, Tensorflow, and MATLAB to build machine learning models and train AIs.

## HONORS AND AWARDS

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**Dean's List of Washington University in St. Louis**

2023

**Silver Medal (2nd out of ~20,000 participants), US Academic Decathlon of China:**

**Music Category**

2021

**Distinction Rank (Top 5%) in 2021 AMC 12A**

2021

**1st Place in Gold Division (out of 723 participants) of the United States of America**

**Computing Olympiad(USACO) Contest**

2020

**Top 2% of 148,880 students, National Olympiad in Informatics in Province (NOIP)**

2019