

# Lechen Huang

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## EDUCATION

2024 – 2027

**B.S. in Computer Science, UCLA**

- GPA: 4.00/4.00
- Dean's Honors List
- Senior Standing / Expected: Mar 2027

## TECHNICAL SKILLS

**Programming Languages:** C, C++, Python, Java, C#, JavaScript

**Data & ML:** R, Stata, NumPy, PyTorch, MiDaS, OpenCV, PIL, Matplotlib

**Tools & Systems:** Git, Linux, LaTeX, VS Code, Jupyter

## RESEARCH EXPERIENCE

**Q-learning AI for Gomoku**

- Conducted research on Q-learning algorithms in the Gomoku board game
- Engineered an AI program to play Gomoku with the application of Q-learning

**CO<sub>2</sub> Impact on Surface and Ocean Temperatures**

- Analyzed historical CO<sub>2</sub> levels using linear, quadratic, and ARIMA models to predict future trends.
- Authored a 22-page research paper on the correlation between CO<sub>2</sub> concentration and climate change.

**Effects of Sleep on Mathematics Performance**

- Conducted a statistical analysis on sleep duration and math grades using Stata.
- Co-authored a research paper in collaboration with the high school data science club.

## INTERNSHIP

**AI Computer Vision Intern — Huawei Nanjing Research Center**

- Developed a depth-aware 2D dolly-zoom animation pipeline using MiDaS depth estimation and bilinear warping
- Improved visual coherence by preserving depth focus consistency and reducing geometric distortion artifacts

## HONORS & AWARDS

**Mathematics:**

- **Honor Roll of Distinction (Top 1%),** American Mathematics Competition 12
- **National Individual Top Award (Top 1%),** The Mathematics League
- **Finalist (Top 8%),** High School Mathematical Contest in Modeling (HiMCM)

**Computer Science:**

- **Gold,** USA Computing Olympiad (USACO)
- **Individual Global Silver, National Top 10,** American Computer Science League (ACSL)
- **National Second Prize,** China Computer Federation Certified Software Professional Senior Division

**Robotics:**

- **First Prize & Third Place,** VEX EDR Asian Robotics Championship China Division (Team Leader)
- **First Prize,** VEX EDR Jiangsu Provincial (Team Leader)

## ACTIVITIES

**Participant, Tencent Rhino-Bird High School Science Talent Training Program**

- Selected for an intensive training program, passing a rigorous evaluation (34% pass rate)
- Assisted in debugging and optimizing student code for programming assignments.
- Researched canine nose print recognition for pet identification and loss prevention.

**Founder & Researcher, Computer Science & Data Science Club**

- Instructed club members on using Stata, R, Python, and other software for data analysis at Jinling High School.
- Analyzed data and co-wrote a paper: “Effects of Sleeping Time on Mathematics Grades”;

**Teaching Assistant, AP Computer Science**

- Assisted students with coding challenges and AP Computer Science problems, offering online tutoring sessions