

ANDREW ZHANG  
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## A. OBJECTIVE

Expand my knowledge and pursue a research-driven career in academia or research labs in visual computing and visual reasoning through Ph.D. studies.

## B. EDUCATION

Sep. 2022 - Jun. 2026 **University of California, Los Angeles (UCLA)**

**Major:** Mathematics (Mathematics in Computing)

**GPA:** 3.85

**Courses (Taken/Taking):**

Linear Algebra (Honors), Abstract Algebra I-II (Honors),  
Real Analysis (Honors), Complex Analysis, Differential Geometry,  
Discrete Structures, Algorithms, Image Processing,  
Machine Learning, Artificial Life (graduate course),  
Probability Theory I-II, Numerical Methods I,  
Computer Animation, Computer Graphics, Image Processing,  
Programming Languages, Software Construction,  
Computer Organization

**Courses (Planned):**

Numerical Methods II, Topology, Optimization,  
Theory of Computing, Operating System Principles

Sep. 2021 - Jun. 2022 **Oregon State University** (Dual Enrollment)

**Major:** Computer Science

**GPA:** 4.0

**Courses:** Vector Calculus I, Linear Algebra I, Applied Differential Equations,  
Intro to Computer Science II

## C. EXPERIENCE

- Jun. 2025 - Sep. 2025 Amazon Software Development Engineer Intern (Full Stack)  
*Designed and implemented a new feature to optimize critical event creation, redesigned NoSQL database storage system for Tags and Events to improve scalability, and planned and supported the integration of an LLM-assisted ticket-severity classifier.*
- Jun. 2024 - Present Researcher on Self-Identified Project  
*Conceived a novel visualization technique for vector fields, and designing and implementing visualization techniques along with interactive user control.*
- Aug. 2023 - Jul. 2024 Researcher on Self-Identified Project  
*Formulated research statement, programmed the research software, performed data analysis, and wrote the Research Paper.*
- May 2023 - Present American Go Foundation (AGF) Youth Representative  
*AGF Board member mentoring the American Go Honors Society.*
- May 2023 - Jul. 2023 Tournament Director at **US Go Congress 2023**  
*Planned, organized, and ran the Pair Go tournament.*
- Jun. 2020 - Aug. 2020 Summer Research Intern at **Oregon State University**  
*Created a graphical user interface using C++, OpenGL, and QT libraries to load and display a 3D surface represented by quadrilateral elements.*
- Sep. 2020 - Jun. 2022 Tournament Director and Co-President at **American Go Honors Society**  
*Planned, organized, and ran events for youth Go players worldwide, and mentored new board members on planning and running Go events.*
- May 2020 - Aug. 2020 Tournament Director at **US e-Go Congress 2020**  
*Planned, organized, and ran the Pair Go and Double-Digit Kyu tournaments.*
- Nov. 2018 - Jun. 2019 Research Volunteer at **University of Stuttgart, Germany**  
*Assisted in designing and conducting eyetracking experiments for the understanding of player intensions while playing collaborative virtual board games.*
- Aug. 2018 - Dec. 2018 Varsity Badminton Team of **International School Stuttgart, Germany**  
*Represented the school at the German International School Sport Tournament.*

## D. SKILLS

### 1. Languages

- English (Native Fluency)
- Chinese (Native Fluency)
- German (Proficiency)
- French (Beginner)

## 2. Computer Skills

- **Languages:** Python, C/C++, Java, JavaScript, Haskell, SQL, Bash
- **Frontend:** React, HTML5/CSS3
- **Backend/Runtime:** Node.js
- **Cloud (AWS):** S3, DynamoDB, OpenSearch, Lambda, CloudWatch, IAM
- **Graphics & Visualization:** OpenGL
- **Tools & IDEs:** Git, Visual Studio, Qt Designer, MATLAB, L<sup>A</sup>T<sub>E</sub>X, Asymptote, Amazon UI (AUI)
- **Productivity:** Google Workspace, Microsoft Office, Adobe Premiere Pro
- **ML Frameworks/Libraries:** PyTorch, TensorFlow, NumPy

## 3. Go

- Advanced amateur player (4 Dan)

## E. PUBLICATIONS

- Andrew Zhang and Steve Zhang, "Influence of Perspectives on Human Player Decisions in Board Games Online", *Proceeding of IEEE Conference on Games 2024*, Milan, Italy, 2024. pp. 1-8, doi: 10.1109/CoG60054.2024.10645660.

## F. PROFESSIONAL PRESENTATIONS AND TECHNICAL TALKS

- "Influence of Perspectives on Human Player Decisions in Board Games Online", *IEEE Conference on Games 2024*, August 8th, 2024, Milan, Italy.

## G. HONORS AND AWARDS

### 1. National and International Awards

- IEEE Conference on Games Best Paper Candidate 2024
- Qualified for American Invitational Math Examination (AIME) 2022
- American Go Foundation College Scholarship 2021
- Presidential Volunteer Service Gold Award 2021
- AP Scholar 2021
- USA Math Talent Search Silver Medalist 2021
- Qualified for American Invitational Math Examination (AIME) 2021
- New York Youth Go Open - First Place (Division B) 2020
- Saijo European Youth Go Tour Germany Stage - Third Place (U16) 2019

**2. State and Regional Awards**

- Oregon Go State Championship - Second Place (Handicap Division) 2019

**3. School and Community Awards**

- UCLA Dean's Honors List (Fall 2022, Winter 2023, Spring 2023, Winter 2024, Spring 2024)
- Most Improved Badminton Player by International School of Stuttgart 2019