

HUI PENG JOHN YAO

(571) 668-0684 ▪ 3 Bellflower St ▪ Ladera Ranch, CA 92694 ▪ Radius: Open / Remote / Nationwide
Email: huipengjohnyao@gmail.com Github: <https://github.com/Hui-Peng-John-Yao> Site: huipengjohnyao.com

EDUCATION

University of California, Los Angeles (UCLA)

B.S. in Computer Science – Incoming Freshman, Expected Graduation: Summer 2029

Thomas Jefferson High School for Science and Technology (TJHSST)

Graduation: June 2025 | GPA: 4.55 (Weighted) | SAT: 1580

Relevant Coursework:

- Computer Science: Foundations of Computer Science, AP Computer Science, Artificial Intelligence, Mobile and Web Application Development Research Lab
 - Math & Stats: AP Calculus BC, AP Statistics, Linear Algebra
 - Science: AP Physics C: Mechanics, Electricity and Magnetism
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CERTIFICATIONS & COURSES

- AWS Certified Cloud Practitioner – 2025
 - The Complete Full-Stack Web Development Bootcamp (Udemy) – 2025
 - AI-Agents: Automation & Business with LangChain & LLM Apps (Udemy) – 2025
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SKILLS

- **Programming Languages:** Python, Java, JavaScript, R, HTML, CSS, GDScript, C++
 - **Frameworks & Libraries:** React, Node.js, Express, Bootstrap, Tailwind
 - **Cloud & Databases:** AWS (S3, Lambda, DynamoDB, IAM, API Gateway, Cloudfront, Route 53, Certificate Manager), SQL, PostgreSQL
 - **Technologies & Platforms:** Git, REST APIs, OAuth 2.0, Alexa Skills Kit, Google Drive API, Cursor AI, Flowise, Slack, Linux
 - **Leadership & Communication Skills:** Team Leadership, Collaboration, Communication
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PROJECTS

Workout Planner (In Progress) | *Personal Project* | *React, Tailwind, Node.js, AWS, Flowise, Expo, Google Auth*

- Leading a team of six developers to build an AI-powered personal training app and website.
- Developing a responsive React + Tailwind front-end and integrating Flowise for personalized LLM generated workout recommendations.
- Deploying scalable backend services with Node.js and AWS for authentication, data storage, and API management.
- Targeting 200 UCLA beta testers with plans for a free/premium subscription model.
- Implementing cross-platform mobile functionality with Expo to extend access beyond the web.

Infinite Delve (In Progress) | *Personal Project* | *React, Tailwind, Node.js, AWS, Flowise*

- Engineering an automated full-stack application on AWS with React.
- Establishing a backend database server using DynamoDB and REST API.
- Designing a game featuring AI-driven crafting and story generation mechanics.

Alexa-Powered Voice Journal Assistant | *Personal Project* | *Python, AWS Lambda, Google Drive API, DynamoDB, Alexa Skills Kit, IAM*

- Built an AWS Lambda function in Python to securely access and parse journal entries from a private Google Doc using OAuth 2.0, storing data in DynamoDB.

- Designed a companion Lambda function to retrieve tasks from DynamoDB and integrate with a custom Alexa Skill.
- Published the Alexa Skill via the Developer Console, enabling voice interaction with commands such as “Alexa, what are the tasks from John’s Journal today?”

Personal Website | *Personal Project* | *Git, React, AWS S3, Cloudfront, Route 53*

- Designed and developed a responsive personal website at huipengjohnyao.com using React.js.
- Deployed on AWS S3, configured CloudFront and AWS Certificate Manager for secure HTTPS delivery, and managed the domain with Route 53.

Unibound Consulting | *Personal Project* | *React, Tailwind, Node.js*

- Contributed to front-end development for a college consulting website, implementing responsive and user-friendly design.
- Collaborated with a small team providing college consulting services to clients

Arcane Chess | *Personal Project* | *Godot, GDScript*

- Developed a game in GoDot that combines the classic gameplay of chess with a card and mana system.

Published Research | *Personal Project* | *R*

- Designed and distributed a survey using the Brief-COPE via Centiment to collect data on student stress and coping mechanisms..
- Performed statistical analysis in R, including ANOVA, paired t-tests, and chi-squared tests.
- Authored and published “*The Role of Game-Playing and Coping Styles in Mitigating Stress Among Students*” in the *Whitman Journal of Psychology*.

LEADERSHIP & TECHNICAL ACTIVITIES

Woodwind Captain – TJHSST Marching Band

- Led and mentored 40+ musicians; developed lesson plans and onboarding guides for new members.
- Organized sectionals and team-building activities, including custom card games, to foster collaboration and cohesion.

Science Olympiad Team Member (9th–11th Grade)

- Competed in engineering events such as Experimental Design and Thermodynamics.
- Earned 20+ medals at regional and national competitions.