

SAN DIEGO STATE UNIVERSITY

AI, Science & Robotics — Summer Workshop

📅 July 10–11, 2026 📍 SDSU · GMCS 324 (backup: E221 or GMCS 309) 🎓 Certificate of completion

Two-day agenda · Lunch & snacks provided

Day 1 — Friday, July 10

9:00–9:30	Welcome, Keynote & Icebreakers Qi Wang, Ang Li & Yin Yu
9:30–10:15	What is AI? — big ideas + live demos Instructional team
10:15–10:30	<i>Break</i>
10:30–12:00	Hands-on ML Lab: Train Your First AI Instructional team + TAs
12:00–1:00	<i>Lunch</i>
1:00–2:00	Generative AI & LLMs: How does ChatGPT work? Ang Li's research group · via Zoom
2:00–3:15	Soft Robotics: intro + hands-on fabrication Prof. Yin Yu
3:15–3:30	<i>Break</i>
3:30–3:50	Science & Music — Guest talk: a pianist's journey Prof. Sonya Schumann
3:50–4:10	Science & Music — Guest talk: the surprising link between rhythm & pitch Dr. Aaron Demby Jones
4:10–4:30	Science & Music: the physics of sound Prof. Qi Wang
4:30–5:00	Project Kickoff — pick your team project All

Day 2 — Saturday, July 11

9:00–9:45	Physics Simulation: modeling the real world Prof. Qi Wang & SDSU students
9:45–10:30	AI World Models: Can AI imagine the future? Ang Li's research group · via Zoom
10:30–10:45	<i>Break</i>
10:45–12:00	Project Build & Test Prof. Yin Yu
12:00–1:00	<i>Lunch</i>
1:00–2:00	Student Team Showcase All
2:00–2:30	Q&A, Certificate Awards & Group Photo All
2:30 →	<i>Networking</i>

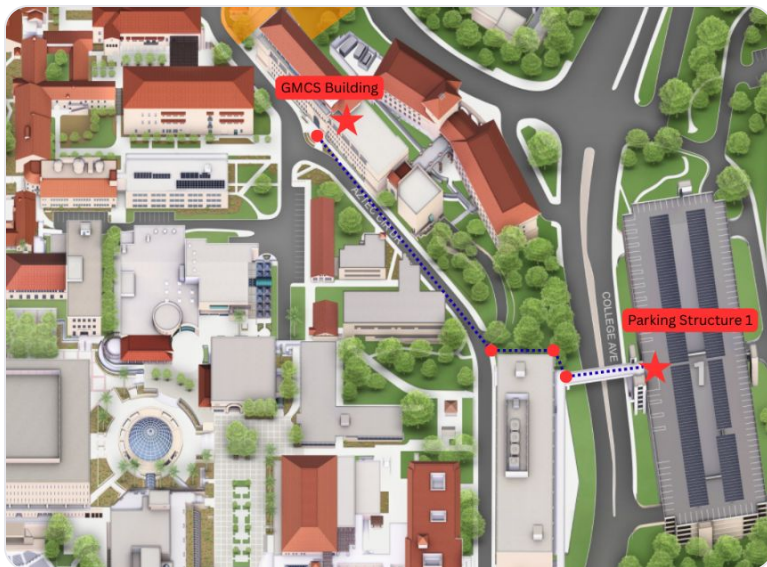
Times are approximate and may shift slightly on the day.

Website & mini-games: qiwang.sdsu.edu/outreach/workshop_site · Questions? qwang4@sdsu.edu

Acknowledgements. Photography by **Leopoldo Gutierrez** (Aerospace Engineering, SDSU). Volunteer: **Jiaqi Zhang**. Student presenter: **Shriya Paladugu** (Del Norte High School, San Diego). With thanks to all of our instructors, speakers, and student helpers.

This workshop is supported by the U.S. National Science Foundation (award #NSF-2431610) and the California Learning Lab.

Getting here & good to know



Park at **Parking Structure 1** (off College Ave), then walk up Aztec Circle Dr to the **GMCS Building** — about a 5-minute walk. The workshop is in room **GMCS 324** (backup E221 or GMCS 309).

WORKSHOP WEBSITE

Everything's online at qiwang.sdsu.edu/outreach/workshop_site — the agenda, the team, and all the mini-games we built, to play anytime.

PARKING

A campus parking permit is required. Easiest is to pay in the **PayByPhone** app (or call 1-888-515-7275) — about **\$11 for the day** (hourly: 1 hr \$3.35, 2 hr \$6.35). SDSU permits are *not* valid at the University Towers lot.

WI-FI

Connect to the free **SDSU_Guest** network — no password; just open a browser and accept the terms to get online.

IN AN EMERGENCY

SDSU Police: **911** (emergency) · **619-594-1991** (non-emergency). Check-in and all sessions are in GMCS 324.

Instructors, Speakers & Team

ORGANIZERS



Prof. Qi Wang

ORGANIZER · DEPT. OF AEROSPACE ENGINEERING, SDSU

A faculty member in the Department of Aerospace Engineering at San Diego State University. His research combines computational fluid dynamics, scientific machine learning, inverse problems, and data-driven modeling of turbulent and other complex physical systems. He is a strong advocate for combining music education with engineering thinking.



Prof. Ang Li

ORGANIZER · ELECTRICAL & COMPUTER ENGINEERING, UNIVERSITY OF MARYLAND · JOINING REMOTELY VIA ZOOM

Assistant Professor of Electrical & Computer Engineering at the University of Maryland. His research lies at the intersection of machine learning and edge computing — building large-scale, networked, and trustworthy intelligent systems, including efficient large language models and on-device AI.



Prof. Yin Yu

ORGANIZER · SCHOOL OF ART & DESIGN, SDSU

An artist, designer, and engineer in the School of Art & Design at San Diego State University. Her work spans soft robotics, wearable technology, and interactive multimedia — exploring biomimicry and the meeting point of art, architecture, music, and AI. Her projects have been exhibited internationally, including at Ars Electronica and the CHI conference.

GUEST SPEAKERS — SCIENCE & MUSIC (DAY 1)



Prof. Sonya Schumann

PIANIST & PIANO PROFESSOR, SDSU · CHAIR, SAN DIEGO AMATEURPIANISTS

A pianist and piano professor at San Diego State University, and chair of San Diego AmateurPianists — a community that brings together adult pianists to perform, learn, and share their love of music. She is a dedicated performer, teacher, and advocate for lifelong music education.



Dr. Aaron Demby Jones

PIANIST, COMPOSER & CREATIVE TECHNOLOGIST · STUDIO DEMBY

A San Diego-based pianist, composer, and creative technologist who has been improvising at the piano since age 5. He holds a Ph.D. in Media Arts & Technology from UC Santa Barbara, where his research turned visual patterns from computational fluid dynamics simulations into sound. He now runs Studio Demby, a teaching studio blending computation, mathematics, and musical improvisation.

TEACHING ASSISTANTS

Hongyi Ke

**PHD STUDENT ·
AEROSPACE ENG., SDSU**

Advised by Prof. Qi Wang.
Works on scientific machine learning, data assimilation of turbulence, and LLM-assisted education.

Guoheng Sun

**PHD STUDENT · ECE, UNIV.
OF MARYLAND · VIA ZOOM**

Advised by Prof. Ang Li.
Researches large language models — efficiency and trustworthiness; 2025 Qualcomm Innovation Fellow.

Wanghao Ye

**PHD STUDENT · ECE, UNIV.
OF MARYLAND · VIA ZOOM**

Advised by Prof. Ang Li. Works on efficient / edge large language models and robotics.

Nolan Zeng

**WORKSHOP PLANNER &
DESIGN CONSULTANT**

Computer Science student, UC Riverside. Helped plan and coordinate the workshop.