

# KEVIN XILAI TANG

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## Education

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### UC Irvine

September 2025 – Present

*Bachelor of Science in Aerospace Engineering*

*Irvine, CA, USA*

**Relevant Courses:** MATLAB, Calculus 1, 2, and 3, Classical Physics.

## Projects and Outside Experiences

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### SRAD Solid Propellant Rocket - Barions

January 2021 – August 2022

*Personal Project*

*Sao Paulo, SP, Brazil*

- Designed, built, and launched a high-power solid propellant rocket using an SRAD motor and KNSB propellant.
- Achieved an apogee of 3,000 m using an M1848 class motor and aerodynamic design.
- Developed structural components, integrated propulsion systems, however, a recovery system failure resulted in ballistic descent.

### Picosatellite Mission - GalaxtSat-1

August 2021 – January 2026

*Personal Project*

*Brazil and India*

- Designed and built a PocketQube standard satellite for a Sun-synchronous orbit mission to study lightning formation.
- Integrated subsystems for structure, payload, and ground communications.
- Iterated design for system integration and testing prior to launch on an ISRO PSLV-C62 rocket.

### Liquid Bi-Propellant Rocket - Graviton

August 2022 – Present

*Personal Project*

*Sao Paulo, SP, Brazil*

- Designed and built a liquid bi-propellant rocket using nitrous oxide (N<sub>2</sub>O) and ethanol (C<sub>2</sub>H<sub>6</sub>O).
- Using a 3,000 N engine for propulsion using a shower head injector.
- The rocket is in testing and validation phase.

### L1 Certification Rocket

February 2026 – April 2026

*Personal Project*

*Irvine, CA, USA*

- Designed and built a high-power rocket to gain an Level 1 certification using an H219T-14A motor.
- Developed a MATLAB code to generate parametric rocket nose cone geometries for ogive, von karman, and conical.
- Launched the rocket to reach 1,000 m apogee and recovered, with the condition to fly again.

### Autonomous Drone

August 2023 – October 2023

*Project Manager, Group Leader, and Test Pilot*

*Sao Paulo, SP, Brazil*

- Led design and manufacturing of an autonomous cargo drone prototype for Mars exploration missions.
- Managed team operations, flight testing, and system integration for autonomous and manual flight modes.

## Activities and Leadership

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### UCI Rocket Project Solids

May 2026 - Present

*Propulsion Engineer*

*Irvine, CA, USA*

- Design, build, and test solid rocket motor for apogee of 3,000 m with APCP.

### UCI D1 Men's Tennis

January 2026 - Present

*Team Manager and Stringer*

*Irvine, CA, USA*

- Assist and support in the practices, the matches, and string rackets for the team.

### AIAA Board Member

April 2026 - Present

*Finance Officer*

*Irvine, CA, USA*

- Organize finance, and sponsorship.

### Tennis Player

July 2014 - Present

*Competitive Tennis Player*

*Brazil and USA*

- Won the PTT Wildcard and the Over 18 Paulista Federation Tournament.

## Skills and Languages

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**Skills:** 3D printing, Autodesk Fusion, MATLAB, OpenRocket, C++, Arduino IDE, Python, Arduino, STM32, Microsoft Office, BOM, PCB Design, PCB Component Soldering, Composite Lamination, Manufacturing.

**Languages:** English (fluent), Portuguese (native), Mandarin (native), Spanish (intermediate).

## Awards and Achievements

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**Awards and Achievements:** Published 2 Scientific Papers in IAC2024, 3 gold medals National Astronautical and Astronautics Olympiad, 2 Asteroids (2021-TX56 and 2021-NW20) Discoveries - NASA and Pan-STARRS, National Medal of Merit Honor by Brazil Government, managing personal stock portfolio since 15 years old