

Joon Lee

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www.joon-lee.com/about

Research

Student Inventor, Researcher, and Political Advocate

May 2024 - Present

Dallas, TX

[Watch details](#) (2:00); [Learn more](#)

- Invented a cost-effective AI-rover system to reduce pediatric asthma in school microclimates. Piloted system in 4 Dallas schools, impacting 2.4K+ students with a 22% average decrease in PM2.5 pollution. [2nd place](#), 2025 Texas Science and Engineering Fair (Earth and Environmental Sciences).
- Published a [paper](#) evaluating the extent to which particulate matter, CO₂, and CO concentrations affect pediatric asthma vulnerability (PAV) in schools with low vs. moderate vegetation.
- Used research insights to propose 2 atmospheric safety protocols to Dallas ISD officials. Analyze atmospheric data and PAV proxies in Dallas County to inform a bill proposal.

Researcher

Jun - Aug 2024

Richardson, TX

University of Texas at Dallas

- Under Dr. Karl Ho, developed machine learning models to analyze the impact of Facebook ads on environmental ballot measures in 5 states using natural language processing and sentiment analysis. Discovered disinformation campaigns impacting voter perception in 2 states and presented findings at symposium.

Governor's Science and Technology Scholar

Jul 2025

University Park, TX

Southern Methodist University

- [Engineered](#) unmanned aerial systems and computer vision algorithms to transport packages, optimize radio signals, and map infrastructure and urban food deserts in the Drones Lab at the Governor's Science and Technology Academy. \$2K research scholarship, Texas Workforce Commission.

Experience

Founder

Jan 2024 - Present

Remote

Agsight; [Website](#); [Learn more](#)

- Created the first cost-effective, sensor-free machine learning app to help 40+ small specialty crop farms in 2 countries combat vegetation stresses (crop growth, threats, water use, and soil fertility) with an average yield improvement of ~12% and a ~98% accuracy rate compared to ground-truth sensors. Presented to Frisco ISD School Board, Ericsson.
- [Helped 6 California specialty crop farmers](#) overcome saltwater intrusion and 4 citrus/avocado farms mitigate fruit loss during the 2025 California wildfires. Congressional Recognition, Rep. Michael Burgess + Capitol Hill Invitee.

Product Engineering Freelancer

Dec 2023 - Present

Frisco, TX

[Example prototype](#)

- Developed websites, mobile apps, and business intelligence solutions for 5 local and family-owned businesses, resulting in a ~40% average increase in online traffic and a ~36% increase in conversions in a 6-month period after launch. Adapted software to accommodate non-native speakers and religious practices (e.g., Shari'a finance).

Education

Frisco High School

Aug 2023 - May 2026

GPA (3.98); AP (20); SAT (1550); QuestBridge College Prep Scholar + \$1K STEM Award

Frisco, TX

I will graduate 1 year early by skipping junior year due to accumulation of credits and exhaustion of advanced courses.

Organizations: Science Fair + Research Club (Co-President), Computer Science + Engineering Club (President, CS)