

Teaya Yang

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EDUCATION	University of California, Berkeley Ph.D. in Mechanical Engineering (GPA 3.9/4.0) Advisor: Prof. Mark W. Mueller	August 2022 - 2027 (<i>expected</i>)
	Cornell University B.S. in Mechanical Engineering, <i>Summa Cum Laude</i> (GPA 4.0/4.0) Minor in Physics	August 2018 - May 2022
RESEARCH EXPERIENCE	High Performance Robotics Lab <i>Graduate Student Researcher</i> <i>Research Focus:</i> Perception-driven autonomy for UAVs, with emphasis on vision-based state estimation and scalable field robotics in GPS-denied environments.	August 2022 - Present
	Itai Cohen Group <i>Undergraduate Research Assistant</i> <i>Research Focus:</i> Experimental design and modeling of multi-stable magnetic and pneumatic systems for shape-morphing materials.	January 2020 - May 2022
HONORS AND AWARDS	William C. Webster Fellowship , Department of Mechanical Engineering, UC Berkeley Summer Fellowship , Department of Mechanical Engineering, UC Berkeley Departmental Fellowship , Department of Mechanical Engineering, UC Berkeley Summer Research Award , Cornell Engineering Learning Initiatives	2024 2024 2022-2023 2021
JOURNAL PUBLICATIONS	T. Yang , D. Hathcock, Y. Chen, P. L. McEuen, J. P. Sethna, I. Cohen, and I. Griniasty. “Bifurcation Instructed Design of Multistate Machines,” <i>Proceedings of the National Academy of Sciences</i> , 2023. J. Zha, T. Yang , and M. W. Mueller. “Agri-Fly: Simulator for Uncrewed Aerial Vehicle Flight in Agricultural Environments,” <i>IEEE Access</i> , 2024. A. Bredenbeck, T. Yang , S. Hamaza, and M. W. Mueller. “A Tactile Feedback Approach to Path Recovery after High-Speed Impacts for Collision-Resilient Drones,” <i>Drones</i> , 2025.	
CONFERENCE PUBLICATIONS	T. Yang , R. Ibrahimov, and M. W. Mueller. “Towards Safe and Efficient Through-the-Canopy Autonomous Fruit Counting with UAVs,” <i>Proceedings of the 2025 IEEE International Conference on Robotics and Automation (ICRA)</i> , 2025. T. Yang and M. W. Mueller. “AgriNav: UAV Simulator for Vision-Based Navigation in Agricultural Environments,” <i>Proceedings of the 9th IFAC Conference on Sensing, Control and Automation Technologies for Agriculture (AGRICONTROL)</i> , 2025. R. Ibrahimov, T. Yang , and M. W. Mueller. “Kalman Filter-Based Drift Detection and Mitigation of Visual-Inertial Odometry in UAVs,” <i>Proceedings of the 2025 American Control Conference (ACC)</i> , 2025.	
PREPRINTS	T. Yang , C. Brommer, and M. W. Mueller. “Feature-Based Perception-Aware Multi-UAV Trajectory Planning,” <i>preprint</i> , 2025.	

G. Su, **T. Yang**, R. Sengupta, and M. W. Mueller. “An Iterative Planner with Provable Safety for Quadcopter Navigation,” *preprint*, 2025.

D. Jacquemont, C. Bosio, **T. Yang**, R. Zhang, O. Orun, S. Li, R. Alam, T. M. Schutzius, S. A. Makiharju, and M. W. Mueller. “Autonomous Close-Proximity Photovoltaic Panel Coating Using a Quadcopter,” *arXiv preprint arXiv:2509.10979*, 2025.

TEACHING
EXPERIENCE

University of California, Berkeley
Graduate Student Instructor

ME231B Experiential Advanced Control Design II

Spring 2024, Spring 2025

TALKS

IFAC Conference on Sensing, Control, and Automation for Agriculture

Davis, Aug. 2025

IEEE International Conference on Robotics and Automation

Atlanta, May 2025

BAIR Robotics Workshop

Berkeley, Apr. 2025

Bay Area Robotics Symposium

Stanford, Oct. 2023

FIRA USA California Agricultural Robotics and Technology Forum

Salinas, Sep. 2023

American Physical Society March Meeting

Virtual, Mar. 2021

SERVICE

Reviewer for journals: Transactions on Mechatronics (T-Mech), Transactions on Automation Science and Engineering (T-ASE), Transactions on Control Systems Technology (T-CST), Robotics and Automation Letters (RA-L), Open Journal of Control Systems (OJ-CSYS)

Reviewer for conferences: International Conference on Intelligent Robots and Systems (IROS), American Control Conference (ACC), IFAC Conference on Sensing, Control and Automation Technologies for Agriculture (AGRICONTROL)

Organizer: Bay Area Robotics Symposium (BARS) 2023

Mentoring Experience

I am fortunate to supervise self-motivated junior students on various research problems:

Alan Chen (UC Berkeley, MEng), Xingze Li (UC Berkeley, MEng), Alejandro Municio (UC Berkeley, MEng), Michael Howo (UC Berkeley, MEng), Ian Mansfield (UC Berkeley, MEng), Dylan Lee (UC Berkeley, MS), Qiyuan Liu (UC Berkeley, MEng), Vlad Rosca (UC Berkeley, MEng), Weixing Guo (UC Berkeley, MEng), Xinran Yang (UC Berkeley, MEng), Yunhao Liang (UC Berkeley, MEng), Madeline Bumpus (Howard University, Undergrad), Wentao Zhang (ShanghaiTech University, Undergrad)

SKILLS

Programming Languages

- C/C++, Python, MATLAB, C#, Linux Shell, Java

Software and Tools

- ROS, Git, LaTeX, SolidWorks, Autodesk Inventor, Unity, ANSYS, Arduino IDE, Blender

Manufacturing

- FDM and SLA 3D printing, lathe and mill machining, laser cutting, silicone molding, soldering

Languages

- Mandarin (Native)
- English (Fluent)
- French (Intermediate, DELF B2)