

Stanford



Jakob Thumm

Postdoctoral Scholar, Aeronautics and Astronautics

Bio

BIO

Jakob is a postdoctoral scholar in the Department of Aeronautics and Astronautics. His research aims to improve the safety, efficiency, and acceptance of autonomous robots by combining formal methods and machine learning. Jakob focuses on developing algorithms that enable robots to efficiently act in dynamic environments while guaranteeing safety at all times. He is particularly interested in allowing robots to safely work together with humans.

Prior to joining Stanford, Jakob earned his Ph.D. in Computer Engineering from the Technical University of Munich. His doctoral thesis is titled "Establishing Safe and Preference-Aligned Human-Robot Collaboration in Autonomous Manipulation" and passed with highest distinctions. Jakob received his M.Sc. and B.Sc. in Mechatronics from the Karlsruhe Institute of Technology, researching the intersection of system modelling and machine learning.

Outside the lab, Jakob is a passionate runner and volunteer at Sutro Stewards, where he maintains hiking trails in the heart of San Francisco.

STANFORD ADVISORS

- Marco Pavone, Postdoctoral Faculty Sponsor

LINKS

- Personal website: <https://www.jakob-thumm.com>

Publications

PUBLICATIONS

- **Text2Interaction: Establishing Safe and Preferable Human-Robot Interaction**
Thumm, J., Agia, C., Pavone, M., Althoff, M.
edited by Kroemer, O., Agrawal, P., Burgard, W.
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