

Kenneth Shaw

kshaw2@andrew.cmu.edu

INTERESTS	Dexterous Manipulation (Robot Hands), Learning from Internet Videos, Demonstration Guided Learning
EDUCATION	Carnegie Mellon University Robotics Institute <ul style="list-style-type: none">▪ MS Student in Robotics Aug 2020 – Current<ul style="list-style-type: none">• Advisor: Prof. Deepak Pathak• Thesis: Leveraging Human Videos for Dexterous Manipulation▪ Georgia Institute of Technology<ul style="list-style-type: none">▪ BS in Computer Engineering (Minor: CS in Intelligence) Aug 2017 – May 2020<ul style="list-style-type: none">• Advisor: Prof. Sonia Chernova and Dr. Harish Ravichandar in RAIL Lab• GPA: 3.94 / 4.00
SELECT PUBLICATIONS	CONFERENCES <ul style="list-style-type: none">C1 K. Shaw*, Shikhar Bahl*, Aravind Sivakumar, and D. Pathak, “ Learning Dexterity from Human Hand Motion in Internet Videos” In Submission: IJRR Special Issue 2023.C2 K. Shaw, A. Agarwal and D. Pathak, “ LEAP Hand: Low-Cost, Efficient, and Anthropomorphic Hand for Robot Learning.” RSS, 2023.C3 K. Shaw*, S. Bahl*, and D. Pathak, “VideoDex: Learning Dexterity from Internet Videos.” CoRL, 2022.C4 A. Sivakumar*, K. Shaw*, and D. Pathak. ”Robotic Telekinesis: Learning a Robotic Hand Imitator by Watching Humans on Youtube.” RSS, 2022.C5 J. Kolb, M. Kishore, K. Shaw, H. Ravichandar, S. Chernova. “Predicting Individual Human Performance in Human-Robot Teaming.” RO-MAN, 2021.C6 G. Neville, H. Ravichandar, K. Shaw, S. Chernova. “Approximated Dynamic Trait Models for Heterogeneous Multi-Robot Teams.” IROS, 2020.C7 D. Davis, K. Shaw, S. Rizvi, M. Davis, “Quantum computing: Evaluating Potential Quantification of Projective Psychological Test Scoring.” MODSIM WORLD, 2019. JOURNAL ARTICLES <ul style="list-style-type: none">J1 H. Ravichandar, K. Shaw, S. Chernova. “Strata: Unified Framework for Task Assignments in large teams of Heterogeneous Agents.” AAMAS– JAAMAS track, 2021.J2
FELLOWSHIPS & AWARDS	<ul style="list-style-type: none">▪ NSF Graduate Research Fellowship Recipient 2020 – 2023▪ Warren Batts & Austin Brown Innovation Award scholarship 2019▪ PennApps Hackathon Top 30 Winner: Tensorflow Image recognition to facilitate recycling. 2018▪ HackMIT Sia API challenge 1st Place: Used the Sia Blockchain for ad supported file storage. 2018
ACADEMIC SERVICE	<ul style="list-style-type: none">▪ AI4ALL at CMU: Mentorship of high school students in AI projects 2021▪ Reviewer, <i>ICRA</i>, <i>RA-L</i>
SUMMER INTERNSHIP EXPERIENCE	<ul style="list-style-type: none">▪ AI4ALL at CMU: Mentorship of high school students in AI projects Jun 2021 – Aug 2021▪ Robotics Institute Summer Scholar: Carnegie Mellon Univ. Jun 2019 – Sep 2019<ul style="list-style-type: none">• Visited under Prof. Changliu Liu’s Intelligent Control Lab on Human-Robot Collaboration.▪ University of Southern California: Institute for Creative Technologies May 2018 – Sep 2018<ul style="list-style-type: none">• Visited under Dr. Benjamin D. Nye, Director for Learning Science Research, originally a 10 week NSF REU, extended to 12 weeks for additional development.
MISC. PROJECT EXPERIENCE	<ul style="list-style-type: none">▪ Lightning From Space: VIP (Vertically Integrated Projects) at GT Jan 2018 – May 2020<ul style="list-style-type: none">• Developing new multi-modal communication platform using APRS as well as cellular for bidirectional communication from weather balloon flights to ground.▪ MIT Launch: Orama<ul style="list-style-type: none">• Investigated Two-Factor Password Authentication using facial recognition. May 2017 – Sep 2017▪ ThermoFi: Wireless Thermometer and Humidity Sensor Startup 2015 – 2017<ul style="list-style-type: none">• Worked to create and sell sensors that monitored the home.• Created a server (node.js) which showed monitoring information about the home. (temperature, humidity, air quality)▪ FRC Team 293: High School Robotics 2013 – 2017<ul style="list-style-type: none">• Lead Control Systems Engineer, President, Robot Driver, Inspector

- Worked on workshops educating new members on programming.
- Led many projects such as the Onboard Auto-Targeting System project for “Boulder”/Dodgeball Shot Aiming using OpenCV, on Fine Mechanism Angle Control and Custom Control Boards using TI HID Driver.