

# Kanan K. Mehta

MECHANICAL ENGINEER · ELECTRICAL TEST ENGINEER · COMPUTER SCIENCE STUDENT

🏠 [kananmehta.github.io](https://kananmehta.github.io) | 📧 [kananmehta](mailto:kananmehta@gmail.com) | 🌐 [kanankmehta](https://www.linkedin.com/in/kanankmehta)

## Education

### Georgia Institute of Technology

M.S. IN COMPUTER SCIENCE (EXPECTED), GPA: TBD

*Atlanta, Georgia (Remote)*

*Aug. 2020 - Aug. 2023*

### California Institute of Technology

B.S. IN MECHANICAL ENGINEERING, GPA: 3.5

*Pasadena, California*

*Sep. 2015 - June 2019*

## Skills

<b>Modeling</b>	SolidWorks, PTC Creo (Pro-E), ANSYS Workbench (Structural, Thermal, Fluids), top-down design, motion capture
<b>Fabrication</b>	Lathe, mill, CNC mill, 3D printing, waterjet, laser cutter, soft lithography/microfluidics
<b>Laboratory</b>	Particle image velocimetry, digital image correlation, stress testing, SEM, AFM, optics
<b>Electrical</b>	Circuit design, semiconductor device processing, soldering, oscilloscope/signal generator/DAQ usage
<b>Programming</b>	Python (Qt, NumPy, Pandas, OpenCV, TensorFlow), Java, Kotlin, MATLAB, Robot Operating System (ROS)
<b>DevOps</b>	Git, Linux/BASH, Windows CLI, GitLab CI/CD, OpenShift, Docker, AWS EC2

## Experience

### Lockheed Martin Space

SYSTEMS INTEGRATION AND TEST ENGINEER

*Littleton, Colorado*

*Sep. 2019 - Present*

- Maintain Java/Kotlin codebase and CI/CD pipeline for space simulator backend services.
- Develop automated telemetry processing/data analysis tools in Python 3 with the Qt GUI library.
- Model and fabricate custom test equipment and electro-mechanical packaging for avionics modules.
- Write IronPython test scripts for interfacing with satellites' electrical subsystems.
- Direct technicians and other test engineers in performing electrical and system-level tests for space hardware.

### iRobot Corporation

ROBOTICS HARDWARE INTERN

*Pasadena, California*

*Apr. 2019 - Jul. 2019*

- Designed and fabricated fixtures for sensor test/calibration and workholding.
- Programmed Arduino to troubleshoot sensor data transmission issues.
- Fabricated 'torture track' for testing robots against common obstacles and terrain.
- Soldered and tested custom PCBs with components as small as 0402 SMT.
- Retrofitted and redesigned parts to upgrade outdated prototypes.
- Implemented an unboxing, testing, and tracking system for newly manufactured assets.

### Center for Autonomous Systems Technology

RESEARCH ASSISTANT

*Pasadena, California*

*Nov. 2017 - Jul. 2018*

- Drafted CAD models for robot walking mechanism and electronics/sensor housing.
- Designed custom housing and coupler for motor, gearbox, and magnetic encoder.
- Designed lightweight and moveable testbed for safe field-testing of robot.
- Fabricated components with combination of traditional and advanced manufacturing techniques.
- Trained new researchers in design and machining methods before my departure.

## Selected Coursework

2020	<b>Algorithms Parts I &amp; II</b> , Applied and built fundamental algorithms and structures like Dijkstra's and BST.	<i>Coursera/Princeton</i>
2020	<b>Fundamentals of Computer Vision</b> , Built simple ML model in DIGITS to recognize whale shadows.	<i>NVIDIA DLI</i>
2019	<b>ME 72: Engineering Design Competition</b> , Designed and constructed 3 amphibious RC tanks.	<i>Caltech</i>
2019	<b>ME 50: Experiments and Modeling</b> , ANSYS simulations, water tunnel and materials testing experiments.	<i>Caltech</i>
2018	<b>ME 133/134: Robotics and Autonomy</b> , Surveyed ROS, robot mechanics, and key robotics subsystems.	<i>Caltech</i>

## Activities & Honors

2020	<b>DevOps Launch Program</b> , Participant	<i>Lockheed Martin</i>
2019	<b>SA 16: Cooking Basics</b> , Teaching Assistant	<i>Caltech</i>
2018 - 2019	<b>ME 13: Mechanical Prototyping</b> , Teaching Assistant	<i>Caltech</i>
2018	<b>Project Arduino Competition</b> , University Winner	<i>Thales</i>
2017 - 2018	<b>Robotics Team</b> , Thruster Subsystem Lead	<i>Caltech</i>