Kanan K. **Mehta**

Mechanical Engineer · Electrical Test Engineer · Computer Science Student

kananmehta.github.io | kananmehta | kanankmehta

Education

Georgia Institute of Technology — *Atlanta, Georgia (Remote)*

M.S. in Computer Science (Expected), GPA: TBD — *Aug. 2020 - Aug. 2023*

California Institute of Technology — *Pasadena, California*

B.S. in Mechanical Engineering, GPA: 3.5 — *Sep. 2015 - June 2019*

Skills

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

Experience

Lockheed Martin Space — *Littleton, Colorado*

Systems Integration and Test Engineer — *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 — *Pasadena, California*

Robotics Hardware Intern — *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- Retrofitted and redesigned parts to upgrade outdated prototypes.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 — *Pasadena, California*

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

Activities & Honors

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