Michael Tillapaugh

Data Scientist | Mechanical Engineer

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📱 310.941.6841
📍 Santa Ana, CA

EXPERIENCE

Data Scientist
Projects
2019 – 2020

- Advanced Lane Finding – OpenCV | Github
  Computer Vision project that highlights the current driving lane.
- Lane Finding Visualization – OpenCV | Github
  Computer vision project that highlights and projects road lane lines.
- Pneumonia Detection with CNN – TensorFlow| Github
  CNN project that predicts whether or not a patient has pneumonia.

Sr. Powertrain Mechanical Design Engineer
Karma Automotive
2019 – 2020   Irvine, CA

- Designed Karma's first in-house HV Battery Pack. Included 17% weight reduction, 29% capacity increase, and $6000 BOM cost reduction over previous supplier-designed battery back.
- Led design activities for all Powertrain components used on Karma Revero and Revero GT vehicles, including Gearbox, Traction Motors, Inverters, Genset, Engine Mounts, Exhaust, Fuel System, Heat Shielding, Charging and Power Conversion Systems.

Sr. Electro Mechanical Design Engineer – FF91 & FF81 Vehicles
Faraday Future
2017 – 2019   Gardena, CA

- Sr. Design Engineer responsible for detail design of all 12V Wire Harnesses and Components (Switches, Electrical Devices, Brackets) from concept stage to testing and validation.
- Designed plastic injection molded and sheet metal brackets for packaging of 12V components throughout the vehicle.
- Lead cross-functional design reviews of full vehicle packaging by evaluating dynamic motion envelopes, tolerances, clearances and interface requirements between parts from all vehicle groups.

Mechanical Design Engineer
Northrop Grumman
2011 – 2017   Redondo Beach, CA

- Ability to simultaneously manage many Mechanical Ground Support Equipment projects by leading design reviews, creating build-to-print packages, and providing floor support for integration and test of end items.
- Experienced with a variety of manufacturing processes, materials, finishes, fasteners & hardware including aluminum, steels, honeycomb panels, thermal spacers, shims, etc.

SKILLS

Git
Github
Python
Tableau
OpenCV
SQL / PostgreSQL
TensorFlow / Keras
Deep Learning (CNN)
Computer Vision (CV)
Machine Learning (ML)
Data Cleaning / Handling
Data Processing / Visualization
Natural Language Processing (NLP)

FEA
GD&T
Solidworks
CATIA V5 / V6 (>10,000 Hours)
Team Center / SmarTeam / Enovia

EDUCATION

Certificate, Data Science
Thinkful
Jan 2020 – Jun 2020   Irvine, CA

Bachelor of Science,
Mechanical Engineering
University of California, Irvine
Jun 2007 – Jun 2011   Irvine, CA

FIND ME ONLINE

in /michaeltillapaugh

 /mtillapaugh

🌐 mtillapaugh.github.io