Richard Ling

San Francisco, CA | Email: rzling88@gmail.com
Data Scientist with 5 years of experience and Masters Degree in Mechanical Engineering.

Skills:

Programming Language: Python, SQL, Scala, MATLAB
Analytical Tools: Pandas, Numpy, Sklearn, Tensorflow, Statsmodel, Matplotlib, Seaborn, Pyplot, Spark, Simulink, MS Office
Design Software: Solidworks, Creo2.0, AutoDesk Inventor
Simulation tools: PTC Creo Simulate, Solidworks Simulation, AutoDesk Inventor
Enterprise Resource Planning Software: Exact Macola 10, SAP, Oracle, Syteline,
Spoken/Written Languages: Cantonese and Mandarin.

Projects:

Capstone Project: Car Classification with Imagery (Auto-enVision)

- Built a car classification model into a web app for car buyers and sellers to mobilize their car research on the go with a one-step process.
- Built a web scraper tool to gather images for Jeep Renegade, Jaguar F-Type, BMW i8 and BMW M4.
- Custom built a convolutional neural network model and a model with Keras pretrained VGG16 on 10,000 images to classify 4 car models.
- The models were capable with accuracy of 95% and 98% on the custom and pretrained model, respectively.

Client Project: Flood Detection with Imagery (Flood Bank)

- In a group of 3, developed a binary classification model and flood detection with a pretrained model to filter flooded images and then approximate its flood depth.
- Used Labellmg for image labeling and Roboflow's Yolo-v3 Pytorch pretrained model for object detection.
- Achieved accuracy of about 70% with 1000 images and demonstrated the capabilities of the concept.
- The leading group who took on this project given the requirements were beyond our knowledge at the time.

Experiences:

Ametek Surface Vision Inc. Hayward, CA 94544
Mechanical Engineer (August 2015 – March 2020)

- Successfully completed many orders over $100K on schedule without shortages and production delays by predicting usage with a data tracker I created and assigned tasks to the production floor to begin assembly in advance.
- Optimized multiple assembly BOM by 30% and reduced material cost by 50% by analyzing the BOM data, usage data and working with assembler to identify part redundancy and unnecessary parts.
- Reduced post-delivery order issues from customers by more than 50% in 2019 by managing production flow, working closely with customers, buyers, accountants and vendors.

Gillig LLC. Hayward, CA 94545
Mechanical Engineer (October 2014 - June 2015)

- Successfully implemented a safety cover from concept into production to prevent harnesses from tangling into the driver's foot area by working with drivers to understand and analyze their movements.
- Executed a customer order of over 10 buses for a worth over $500K+ by working with the customer to custom fit a special camera to the exterior wheel panel.

NASA Ames Research Center Mountain View, CA 94035
Mechanical Design Engineer (June 2013 - September 2014)

- Researched and developed calibration mounts for helicopters swashplate assembly for wind-tunnel testing.
- Designed hardware capable for wind-tunnel testing by doing FEA simulation against the maximum vibration I estimated by analyzing the wind-tunnel dataset.
- Collaborated with team members and machinists to improve, optimize and reduce the cost of the calibration mount.

Education/Certifications:

General Assembly	**Data Science Immersive Program**	(March 2020 - June 2020)
San Jose State University	**M.S in Mechanical Engineering**	GPA 3.7/4.0 (May 2013)
University Of California, Davis	**B.S in Mechanical Engineering**	GPA 3.0/4.0 (June 2011)

Engineering-In Training Certified: Mechanical (#139866)