ANNE EN-TZU YANG

Minneapolis, MN || anneyanget@gmail.com || (617) 309-9419
github.com/aety || linkedin.com/in/aetyang || sites.google.com/view/aety

EXPERIENCE

- **Data Science Fellow**, Insight Data Science *(Minneapolis, MN)* *2019/09 - 2019/10*
  - Predicted the air quality inside Paris metro stations to help passengers manage health risks.
  - Utilized PROPHET and ARIMA for time series analysis, resulting in XX% forecast accuracy.
  - Identified predictors for R = XX correlation using TensorFlow's neural network regression.
- **Postdoc**, Institute for Intelligent Systems and Robotics *(Paris, France)* *2018/09 - 2019/08*
  - Designed markers to aid the detection of the shape and orientation of flexible surgical tools from 2D X-ray images.
  - Employed convolutional neural network to process images and reconstruct 3D shape and orientation angles ($\sim 10ms$/frame) (errors $< 1°$).
  - Published results at IEEE and local surigcal robotic conferences, *tinyurl.com/cath2019*.
- **PhD Intern**, Sanofi *(Bridgewater, NJ)* *2017/06 - 2017/08*
  - Wrote a sub-function to revise an existing model on asthma formation and treatment.
  - Performed t-test and ANOVA test on clinical trial data on asthma medication.
  - Wrote MATLAB scripts to automate statistical tests and data visualization.
- **PhD Candidate**, Northwestern University *(Evanston, IL)* *2012/09 - 2018/08*
  - Investigated the neural pathway of rat whiskers to understand human's sense of touch.
  - Constructed models in Python and MATLAB to quantify mechanical signals on the whiskers and resultant neural responses in the brain when rats sensed contact or airflow.
  - Predicted 4 categories of neural responses from 420 sets of 100-ms data sampled at 10kHz.
  - Summarized trends in data from > 500 rat whiskers, and built predictive model for rat whisker geometry given identity.

SKILLS

- **Languages**, Python, SQL, Matlab, LaTeX
- **Packages**, Pandas, Flask, Numpy, Scipy, TensorFlow, PostgreSQL
- **Tools**, Git, Jupyter Notebook, Linux
- **Knowledge**, computer vision, analysis, machine learning, statistics, communications, mathematics, visualization, deep learning, natural language processing, software development, neural network, convolutional neural network

EDUCATION

- **PhD**, Northwestern University *(Evanston, IL)* *2012/09 - 2018/08*
  - Mechanical Engineering
- **Certificate**, Kellogg School of Management *(Evanston, IL)* *2016/06 - 2016/08*
  - Management for Scientists and Engineers
- **BS**, National Taiwan University *(Taipei, Taiwan)* *2008/09 - 2012/06*
  - Mechanical Engineering