

ANNE EN-TZU YANG

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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
 - Expedited the tracking of robotic surgical tools from 2D X-ray images ($\sim 10ms/frame$).
 - Employed convolutional neural network to reconstruct 3D angles (errors $< 1^\circ$).
 - Published results at international conferences, tinyurl.com/cath2019.
- **PhD Intern**, Sanofi (*Bridgewater, NJ*) 2017/06 - 2017/08
 - Added new functions to more accurately model 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
 - Investigate the neural pathway of human's sense of touch using the model system of rat whiskers.
 - Constructed models in Python and MATLAB to quantify the mechanical signals when whiskers sense contacts or airflow and the resultant neural responses in the rat's brain.
 - Predicted 4 types of neurons response from 420 sets of 100-ms data sampled at 1kHz.
 - Summarized data from > 500 whisker for predictive modeling on rat whisker geometry.

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

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