Chun-Min (Mindy) Jen, Ph.D.
U.S. Lawful Permanent Resident

📞 +1-630-518-4967
✉ jencmhep@gmail.com
in /mindy-jen
⌂ /mindy-jen

⚙ Skills

Coding   Python, MATLAB, C, C++, SQL, Bash/Tcsh/C-Shell, Fortran 90
Toolkit   scikit-learn, keras, sciPy/numPy, matplotlib, pandas, OpenCV, GitHub, Docker, AWS

⚗ Projects

Face Image Detectors   Oct. 2020 – now
> Built 5 individual face image detectors as follows: image calibration, key-point regressor, image object detection & classification & tracking, action recognition and semantic image segmentation and synthesis problems.

Automatic Image Caption Generator   Sep. 2020
> Built a hybrid CNN-LSTM model using keras to generate a textual description for a given photograph.

COVID-19 and Pneumonia Diagnose through Chest X-ray Image Classification   Aug. 2020
> Built a convolution neural network model that can classify whether a given patient has pneumonia, given a chest x-ray image, from scratch with an accuracy up to **97%**

COVID-19 and Safety On Wheels in Chicago : Let crashes show you how to learn lessons   Jul. 2020
> Built a **multi-class** classifier to predict the primary contributory cause of a car accident, given information about the car, the people in the car, the road conditions etc. A shallow machine learning model using Random Forest, Gradient Boosting and XGBoost achieved accuracy ranging from **85%** to **95%** and AUC between **0.98**-**0.99**

Brain fMRI Image Analysis   Oct. 2016 – Apr. 2018
> Automated **MATLAB** batch scripts in use of conventional **SPM12** framework for fMRI brain image data analyses
> Experiences with pre-processing, calibration and regression modeling of spacial and time-series brain images
> Expertise in statistics models, e.g. GLM, ANOVA and MVPA, along with state-of-the-art **machine learning** skils

Data Analysis   May 2009 – Oct. 2012
> Created a set of self-defined, mutually orthogonal variables to parameterize multivariate regression models that are expanded with different dimensions, to combine parameterized regression model with existing regression analysis in **C++** on Linux, to characterize various noises with patterns, to control noise sizes for optimization of detector performances through noise reduction and finally to choose optimal errors and corrections made to data in unit of **ppm** and/or **ppb** for experiments with a strong emphasis on high precision

◔ Experiences

Flatiron School, Data Science Fellow Student   Full-time Online, Apr. 2020 – now
> Accelerated 20-week statistics models, shallow, classical machine learning and modern deep learning program, focusing on doing real data science projects from Kaggle & UCI and developing artificial intelligence Apps

Los Alamos National Laboratory, Sr. Postdoc   Los Alamos, NM, Sep. 2018 – Mar. 2020
> **Experimental high-energy nuclear physics** with **6** publications in top peer-reviewed journals

National Taiwan University, Machine Learning Researcher   Taipei, Taiwan, Oct. 2016 – Apr. 2018
> **Consumer neuroscience**

Virginia Tech, Jr. Postdoc   Blacksburg, VA, Apr. 2013 – Aug. 2016
> **Experimental neutrino physics** with **7** publications in top peer-reviewed journals

Syracuse University, Ph.D. Graduate Research Assistant   Syracuse, NY, Aug. 2007 – May 2013
> **Experimental medium-energy nuclear physics** with **5** publications in top peer-reviewed journals

National Taiwan University, Master Graduate Research Assistant   Taipei, Taiwan, Aug. 2002 – Jun. 2005
> **Experimental high-energy particle physics** with **1** publications in top peer-reviewed journals