

# NAE-RONG CHANG

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## EDUCATION

**Pennsylvania State University - University Park**  
**Bachelor of Science in Computational Data Science**

**Expected Graduation: August 2020**  
**Cumulative GPA: 3.30 / 4.00**

## PUBLICATION

**Mao, J., Harris, K., Chang, N.R., Pennell, C., & Yiming, R. (2020, May 12). Train and Deploy an Image Classifier for Disaster Response. Retrieved from <https://arxiv.org/abs/2005.05495>**

## WORK EXPERIENCE

**Data Science and Quality Assurance Co-op**  
**Oracle Corporation**

Conshohocken, PA 2019-06 to 2019-12

- Designed, developed and deployed machine learning models to predict and inform clients of potential schedule delays in their construction projects.
- Created automation scripts in Jenkins to validate data quality during the ETL process.
- Assisted the development of Oracle Cloud Infrastructure by optimizing script compatibility between the local environment and cloud environment.

**Research Assistant**  
**Intelligent Vehicles and Systems Group**

State College, PA 2018-09 to 2019-05

- Analyzed powered wheelchair joystick characteristics to develop adapting driving assistance for people with a neurological disorder.
- Generated and collected parse data sets for future implementation on path prediction system for powered wheelchair.

**IT department ATM team Intern**  
**Shanghai Commercial Bank**

Hong Kong 2018-06 to 2018-08

- Conducted System Integration Testing and User Acceptance Testing in a Fin-tech project (Fast Payment System) initiated by the Hong Kong Monetary Authority to support instant payments among banks.
- Developed test case scenarios regarding the Teller system, ATM system, Internet Banking System and Electronic Clearing System.

## LEADERSHIP

**Public Relation**  
**Taiwanese American Student Association**

State College, PA 2016-10 to 2018-04

- Secured \$5000+ in sponsorship funding by developing marketing contracts, tailored to each sponsor.
- Represented as the lead spokesperson between TASA and its 200+ active members, sponsors, and the Taiwan Department of Student Affairs.

## PROJECTS

**Image Classifier for Disaster Response - Senior Capstone**

- Trained finetuning Torchvision models in PyTorch (ResNet / AlexNet / DenseNet / MobileNet) to classify disaster-related imagery and achieved 80% model accuracy.
- Collaborated with MIT Lincoln Laboratory, a research center chartered to apply advanced technology to problems of national security, to create a summer class for high school students.
- Increased model efficiency by integrating model pipelines, and data storage to communicate with the AWS cloud environment.

**Stock Analysis Prediction**

- Constructed stock market prediction web-application by twitter sentiment analysis and stock resistant and support method.
- Visualized stock market price by applying the Time-series package, and illustrated data through Shiny App in R

## SKILLS

**Python, R, MySQL, JavaScript, HTML, Linux, Agile Development, Git, Machine Learning**