

Shan Peng

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EDUCATION

Sep 2017 – Jun 2020 **East China University of Science and Technology** **Master, 1st in admission**
Major: Thermal Engineering Subjects: Data Mining, Machine Learning, Neural Networks, Numerical Heat Transfer.
Sep 2013 – Jun 2017 **East China University of Science and Technology** **Bachelor**
Major: Thermal Engineering Subjects: Advanced Mathematics, Probability and Mathematical Statistics.

KNOWLEDGE & SKILLS

- ✦ Familiar with **Python** and data analysis packages: numpy, pandas, matplotlib, seaborn, etc;
- ✦ Familiar with **machine learning** models, such as LR, NB, SVM, RF, GDBT, XGBoost, K-means, etc;
- ✦ Familiar with **deep learning** models: CNN, RNN, LSTM, etc; Framework: tensorflow, Keras;
- ✦ Familiar with the basic structure and process of recommendation system;
- ✦ Understand NLP related algorithms, n-gram, word2vec, attention, bert, etc;
- ✦ Familiar with **SQL**, Mysql and other databases;
- ✦ Understand web development framework: Django, Flask;

RESEARCH EXPERIENCE

Research field – Build 3D CFD model for an industrial grate MSW incinerator

- ✦ Build a 750d/t waste incinerator model with visual C++ on FLUENT platform: combining fluid mechanics, reaction dynamics, use numerical methods to simulate the waste movement, temperature field, flow field and composition field in the incinerator. The error between the model and site measurement is less than 5%.

2 papers: "CFD Model of Gas-Solid Combustion in Moving Grate MSW Incinerator" (**EI, first author**);

"A Two-fluid Model Simulation of an Industrial Moving-grating Waste Incinerator" (**SCI, second author**);

Software copyright: "Simulation calculation software for grate type incinerators".

INTERNSHIPS

2018.06 – 2018.09 **Shanghai Kaiying Network Technology Co., Ltd.** **Operation and Maintenance Engineer**
✦ Encapsulate SDKs and APIs provided by various cloud service providers with Django, to unify interfaces, including addition, deletion, modification, and search of cloud instance.
✦ Focus on Huawei cloud which is newly used, carry out tests and feedback bugs.
2017.05 – 2017.09 **Saint Gobain Group APAC** **EHS Director Assistant**
✦ Analysis and summary EHS reports from factories in APAC and report to director every week.
✦ Translate more than 50 English documents into Chinese.
2015.05 – 2015.10 **Shanghai Lingzhi Technology Co., Ltd.(Cancelled)** **Co-founder**
✦ Responsible for the context of a news APP (the product), select qualified news and articles to update daily.
✦ Help to update user interface and fix bugs.

PROGRAMS

Kaggle – House Prices Predictions: Predict the price according to the characteristics of the house

- ✦ Visualize the data, take feature engineering, PCA, create pipelines, obtain multiple base learners with Ridge Lasso, SVR, RF, XGBoost, get prediction with a two-layer stacking st, RMSE reduced from 0.1124 to 0.1018 finally.

JDATA –User purchase predictions for stores under categories

- ✦ Construct user model (extracting user attribute characteristics, time characteristics, behavior characteristics, etc.) and product model (extracting item attribute characteristics, shop characteristics, etc.). Both models are trained and optimized using XGBoost, model fusion is performed to obtain predictions.

Awards and certificates

Bronze for the 7th College Student Entrepreneurship Competition in ECUST (Captain)

Certificate for Enactus Elite Student; CET6