

# KUANG-TING CHANG

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## PROFESSIONAL EXPERIENCE

### **Senior Data Scientist**

Penguin Random House

Jan, 2020 - Present

- Led a cross-functional team to re-design of recommender system APIs, deployed to production using AWS CloudFormation and Gitlab CI.
- Tool for sales team - pricing model for bulk discounts
  - Deployed using docker-compose to serve the app built with Django and Nginx.
- Supply chain optimization
  - Time series forecasting printing demand using a neural network model.
  - Visualization with JavaScript. Built an API with the Django REST framework.

### **Data Scientist**

Penguin Random House

Apr, 2018 - Dec, 2019

- Recommender system
  - Optimized and Containerized the recommender system of 15 million users, 65,000 products, reduced the pipeline execution time by 50%.
  - Developed the A/B testing framework.
  - Migrated the system from Netezza to Snowflake database, then from on-premise server to AWS EKS.
- E-mail targeting system
  - Developed a “lookalike” neural network model using TensorFlow.
  - Increased the click through rate by 200%, reduced the churn by 90%.

### **Data Analyst**

Genesis Research

Feb, 2016 - Aug, 2017

- Designed and implemented real-world data-oriented pharmaceutical studies using SAS and Python.
- Acquired data from various datasets typically over 100 million unique patients’ medical records.
- Provided strategies that optimize statistical efficiency and quality, ranging from descriptive to univariate statistical analyses to regression modeling. Interpreted and reported by creating dashboards in Excel.
- Developed web app with Python that facilitates identification and retrieval of medical codes, reduced need for data entry personnel by 90%.

## TECHNICAL SKILLS

- **Advanced Python:**
  - Data analysis and visualization: Numpy, Pandas and Matplotlib.
  - Data Pipeline: Luigi and dbt.
  - Machine learning: scikit-learn, XGboost and TensorFlow.
- **Statistical Modeling:** Supervised and unsupervised learning.
- **Advanced SQL:** Subqueries, Window Functions, Pivoting Data, and Query optimization.
- **Web developing:** Django, gunicorn, nginx, Bootstrap framework, and JavaScript.
- **Additional experience:** Linux, Shell scripting, Docker, AWS, Gitlab CI/CD, snowsql.

## EDUCATION

**New York University, Graduate School of Arts and Sciences**

Master of Arts, Applied Quantitative Research

New York, NY

Dec, 2015

**Yuan-Ze University, Department of Social & Policy Sciences**

Bachelor of Arts, Sociology

Taiwan

June, 2012

## LANGUAGES

Native Mandarin Chinese, Intermediate Japanese (JLPT N4)