

# Liangliang Zheng

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## EDUCATION

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### Vrije Universiteit Brussel

*Master of Science in Applied Sciences and Engineering: Computer Science (AI)*

**Brussels, Belgium**

*Sep 2018 - Present*

### Hunan Agricultural University (ChangSha)

*Bachelor of Science in Information and Computing Science (GPA: 87.17/100)*

**Hunan, China**

*Sep 2014 - Jun 2018*

## Experience

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### Euroclear

*Junior Data Scientist*

**Brussels, Belgium**

*Oct 2020 - Present*

- **New Issue Prospectus Extraction**
  - something
- **Taskize KPI Automation**
  - something
- **Transaction Monitoring Recalibration**
  - something
- **Money Transfer Fail Instruction Match**
  - something

### Vrije Universiteit Brussel AI Lab

*Student Job*

**Brussels, Belgium**

*Mar 2020 - Sep 2020*

- **3D Point Cloud Segmentation**
  - ETL S3DIS data and trained with IPC-Net.
  - Cleaned the STL files by removing external box (C++).
  - Converting STL 3D files to HDF5 point clouds using python, compressed the file to almost 579x times smaller, 182.0GB to 321.9 MB.
  - Converting predicted point clouds back to STL using python scripts. (Vector Similarity, KNN).
  - Deployed the algorithm on cluster.

### DERKEE Tech Co., Ltd

*Java Junior Engineer (Summer Internship)*

**GuangZhou, China**

*Jun 2017 - Sep 2017*

- **Internal Office Automation Application**
  - Participated in the implementation of preliminary interfaces of internal OA
  - Tools & Framework: JavaScript, Spring+Struts+Hibernate

## Other PROJECTS

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### Personal Assistant

*Jul 2019 - Jul 2020*

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### Euroclear Machine Learning Contest

*Jul 2019 - Jul 2020*

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### DeepRL-for-Financial-Stock-Trading

*Jul 2019 - Jul 2020*

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### Learning Building Blocks of Speech based on Deep Networks

*Jul 2019 - Jul 2020*

- Transformed LibriSpeech ASR corpus data to MFCC features and developed end-to-end character level and phoneme level RNN, GRU, Bi-LSTM models to do speech recognition tasks (TensorFlow GPU) deployed on VUB HPC.
- Reproduced Generative Block based on *High Fidelity Speech Synthesis with Adversarial Networks* to investigate speech synthesis (Dilated convolution, Batch normalization, Gradient decay, Dropout, Adam).

### Statistical foundations of machine learning

*Apr 2019 - May 2019*

- Built a predictive stacking model based on the data downloaded from Kaggle (Private leaderboard Ranking: 1st place) platform which includes roughly 40000 labeled samples and 45 features.
- Implemented in the R language feature selection procedures (e.g. mRMR, Lasso), model selection procedures (e.g. SVM, Decision Tree, Random Forest, neural networks), combination of models strategy (e.g. Bagging, Boosting, Stacking).

### **Leetcode: Personal Python Solution**

*Oct 2019 - Present*

- Personal Leetcode problem solutions in Python. So far solved 200+ middle-level hard-level questions and implemented algorithms or data structure included BST, Binary Search, Dynamic Programming, Graph, List, Search (DFS, BFS), String process, Tree, Double-Pointer

## **Skills**

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- Programming Languages (Main): Python, Matlab, Java, JavaScript, Bash
- Programming Languages (Secondary): C++, MySQL, R, Prolog, Lua, SPARQL, Scala
- Framework: TensorFlow, Node.js, Spark, PyTorch
- Deep Network: CNN(VGG, ResNet), RNN Transducer, CTC, LSTM, Bi-LSTM, GAN, Autoencoder
- Library or ML Algorithms: Scikit-learn, GBDT, XGBoost, Random Forest, KNN, EM, SVM, etc
- Mostly used tools: Ubuntu 16.04, Overleaf, Vim, GitLab, VSCode, Colab, Spyder