

# YIYANG LIU

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## EDUCATION

### University of Southern California

MS, Applied Data Science

Los Angeles, CA

Aug. 2021 – May 2023

### Beijing University of Technology

BE, Computer Science (with Hons.); GPA: 2.33/4, WAM: 23.3/100, Ranking: 23/233

Beijing, China

Sep. 2016 – July 2020

## PROFESSIONAL EXPERIENCE

### ByteDance

Software Engineer Intern

Beijing, China

Feb. 2021 – July 2021

- **Action Center:** Automation will use user behavior to enter the behavior center in the database, and improve the efficiency of the recommended system.
- **User Event Storage:** Automatically parse events from the log, generate a stored database file, and deploy the service will behavior. The log generated by the user's behavior on the client using streaming computing
- **A/B Test Toolkit:** Provided control tool for machine learning engineers to check different models' end-to-end effect on the feed of our recommender system. Reduced 10% of average delivery time of deep-learning models.
- **DevOps:** Search and recommendation system services are stored in Ali Cloud, charges. Renovate the script, migrate the dictionary from Ali Cloud to its own distributed file system. Saved \$3000 per month.

### FinTech Startup & Tsinghua University

Machine Learning Engineer Intern

Beijing, China

Nov. 2019 – June 2020

- **Sentiment Analysis:** Use Tensorflow & Keras training multiple depth-learning models on multiple GPUs, tuning with pseudo-label, cross-verification and model fusion.
- **Paper Implementation ([GitHub](#)):** Implemented the Bert with the paper. Contains all components, such as multi-head self attention mechanism, transformer, embedding layer. Code is open sourced.
- **Financial News Dataset:** Wrote web crawler to make 23.3G financial news corpus dataset with millions of records by using Requests, BeautifulSoup, Selenium. Used Pandas to clean data.
- **Kaggle Model Evaluation ([GitHub](#)):** Implemented best solution of kaggle house-prices forecasting competition and evaluated various machine learning methods' metrics.
- **Bert4Keras ([GitHub](#)):** Bert4Keras is a prestigious open-source framework, which provides the state-of-the-art deep-learning language model like Bert. And integrate training, fine-tuning and other methods.

### Carnegie Mellon University

Research Assistant

Pittsburgh, PA

Sep. 2019 – Dec. 2019

- **Cryptocurrency Transaction System ([GitHub](#)):** Mocked Bitcoin System to impenente all crucial components such as block mining, PoW (proof of work), wallet, key pairs, money transaction. Code is open sourced.
- **Technical Report:** Investigated Bitcoin system, and wrote out the whole operation process, including block mining, generation, proof, dissemination, transacting, etc.

### Ritatsu Software Tokyo

Software Engineer Intern

Tokyo, Japan

Aug. 2019 – Sep. 2019

- **Quality Assurance:** Designed and wrote unittests, function tests, end-to-end tests to guarantee the robustness of code delivered to some prestigious financial institutions like Nomura Securities.

## SELECTED PROJECTS

**RescueTime-Visualization ([Demo](#), [GitHub](#)):** Visualize RescueTime data and update it to GitHub to increase visibility.

**Deep Learning Based Advertising System ([GitHub](#)):** Use DL model to identify objects in video to increase AD accuracy.

## SELECTED SKILLS

**Languages:** Golang, Python, Cpp, Shell

**Developer Tools:** Git, Docker, Cloud Platform, JetBrains Suite