

YUWEI ZHANG

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Education

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|----------------------------------|-----------------------------------|-----------------------|
| Duke University, Durham, NC | M.S. in Data Science | Aug. 2020 - May. 2022 |
| National University of Singapore | Computer Science Master Candidate | Jan. 2020 - Jul. 2020 |
| Tsinghua University, China | BEng in Environmental Engineering | Aug. 2011 - Jul. 2015 |

Technical Skills

Programming: Python, Java, C++, Shell, HTML/CSS, SQL, Flask, RESTful API

Machine Learning & Data: Scikit-learn, PyTorch, TensorFlow, NLP, MySQL, PostgreSQL, Redis

Technologies/Frameworks: Linux, Docker, AWS, Spark, Slurm, Distributed Computing, Asynchronous I/O

Experience

Google, Google Photos **Jul. 2022 – now**
Software Engineer *Los Angeles, CA*

AI-driven Movie Editor | *Java, C++*

- Developed a novel movie editor, enhancing overall user experience.
- Orchestrated the process of content curation, integrating algorithms to autonomously select optimal content for customized movies.

Facebook, AI Research **May. 2021 - Aug. 2021**
Software Engineer Intern *Menlo Park, CA*

Automated Machine Translation Toolkit | *Python, Distributed Computing*

- Developed a multilingual **machine translation** toolkit compatible with various **Pytorch** models, with command-line tools for data pre-processing, training, evaluation.
- Accelerated the speed of the entire pipeline by over 20 times via **asynchronous** processing.
- Integrated **Hydra, OmegaConf** to support configuration inheritance, override and sweep with YAML.
- Implemented a **snapshotting system** for consistency in long-term and large-scale distributed training.
- Utilized **Slurm** to manage multi-week training tasks in 300 languages and hundreds of TB data on **large-scale compute clusters**.

DianRong Information Technology – top fintech company **Jun. 2018 - Dec. 2018**
Software and Algorithm Engineer *Chengdu, China*

Tarot Divination App | *Python, Flask, MySQL*

- Built tarot divination app providing online predicting service with Flask, leveraged SQLAlchemy for MySQL interaction.
- Innovated **social features** and **game currency mechanisms** to boost user engagement, gained 120,000 registered users and 2,500 daily unique visitors without any marketing expenses.

Customer Service Inspection System | *Python, Docker*

- Built Smart Inspection System to monitor customer service calls via RESTful API, deployed with **Docker**.
- Designed and developed the backend architecture, communication mechanism, and database of the system.
- Enhanced **data security** by implementing user data encryption and hierarchical permission levels.

Chengdu Think Tank 2861 Info Tech – governmental IT advisory **Jul. 2017 - Apr. 2018**
Software and Algorithm Engineer *Chengdu, China*

- To collect 60 million posts and comments from popular social media platform, developed a **distributed multi-threaded** crawler in Python, deployed on Alibaba-cloud and stored texts in PostgreSQL.
- Constructed a dynamic **opinion analysis model** to evaluate County Government performance and achieved 90% positive rate in user feedback.
- Established an official **social network** with 144,504 hierarchical connections, devised recommendation function by inferring potential connections.