



Zhiyu Yuan

Nationality: Chinese **Phone number:** (+86) 13021995965

Email address: zyy18@tsinghua.org.cn

EDUCATION AND TRAINING

Master Degree of Engineering

Tsinghua University [01/09/2018 – 01/07/2021]

Address: Haidian District, Beijing, China Tsinghua University, 100084 Beijing (China)

Website: <https://www.tsinghua.edu.cn/en/index.htm>

Field(s) of study: School of Software

[\[transcript\]](#) [\[certificate\]](#)

Bachelor Degree of Engineering

Wuhan University [01/09/2014 – 01/07/2018]

Address: Wuhan, Hubei Province, P.R.China. Wuhan University, 430072 Wuhan (China)

Website: <https://en.whu.edu.cn/index.htm>

Field(s) of study: Computer Science

Final grade: 3.67 (top 5%)

[\[transcript\]](#) [\[gpa\]](#) [\[certificate\]](#)

WORK EXPERIENCE

Software Engineer

Kuaishou Technology [14/07/2021 – 31/01/2023]

Researched reducing computational resource consumption while maintaining user experience of quality in a large-scale online video recommendation system. [\[paper\]](#) (unpublished)

1. Proposed an algorithm leveraging user heterogeneity to achieve personalized resources allocation efficiently.
2. Implemented the algorithm and developed Hydrus system serving tens of millions of users in Brazil and Spain, reducing average latency by 6% and saving 8% of computing resources (~30000 CPU cores) with minimal additional runtime (~5ms).

Software Engineer Intern

Kuaishou Technology [01/03/2020 – 01/06/2021]

Focused on improving short-form video recommendation model accuracy to increase click-through rate. [\[paper\]](#) [\[code\]](#) (unpublished)

1. Proposed UDG technology, improving online AUC by 0.4% and engagement metric by 2.0%, serving hundreds of millions of users.
2. Transferred meta-learning technology to online model to alleviate user cold-start problem, achieving better performance and faster training convergence.

Data analyst Intern

Tencent [01/05/2008 – 01/08/2018]

1. Conducted large-scale processing and analysis of massive data from Tencent Maps
2. Rewrote the data processing module in Scala, which was originally written in Java.

PROJECTS

2017 TITC National Undergraduate IOT Design Contest - Team Leader

[01/05/2017 – 01/09/2017]

Developed an intelligent cushion for office workers to protect data privacy and physical health by identifying users and monitoring sitting postures. Won national first prize and China Telecom Innovation Award (Top 1%). [[paper](#)][[video](#)][[award](#)]. My contributions:

1. Proposed and implemented algorithms for feature extraction and classification to identify individuals using distributed pressure sensors.
2. Collaborated in developing a desktop software for user identification, posture monitoring, and data visualization.

kaggle: Jigsaw Unintended Bias in Toxicity Classification - Member

[01/05/2019 – 25/06/2019]

Achieved top-5% ranking with 0.94274 score using an ensemble model of six bi-LSTMs and one BERT. Our highest historical score is top-1%. The specific project description can be found [here](#). [[report](#)] [[pre](#)] [[code](#)]. My contributions:

1. Modified baseline and implemented new ideas to improve model performance. For example: I transplanted focal loss function from object detection to BERT model to enhance training for tough samples, resulting in significant improvement.

DeeCamp 2018 - Member

[01/08/2018 – 23/08/2018]

Achieved pipeline-based autonomous driving in Carla simulator within a month, which included modules for high-precision mapping, object detection and segmentation, path planning and control. We won Best Application Award. [[video](#)][[award](#)]. My contributions:

1. Modified Carla code to add functionality for data collection and visualization of route trajectories.
2. Implemented the Pure Pursuit algorithm to achieve stable control of the vehicle on a predetermined route.
3. Integrated modules using ROS for communication among modules and demonstrated final system.

HONOURS AND AWARDS

Excellent graduate of Wuhan University

Wuhan University [01/06/2018]

Merit Student of Wuhan University

Wuhan University [01/09/2015]

Awarded for two years from 2015 to 2016.

Excellent Student Scholarships

Wuhan University [01/09/2015]

Awarded for three years from 2015 to 2017.