XU YANG

◇ Phone: (+86) 132 2088 7262 ◇ Email: morris.x.yang@gmail.com
◇ Github: https://github.com/morrisxyang

EDUCATION

Ocean University of China, P.R.China

Double Bachelor of Telecommunication Engineering / Marine Technology

- **Major GPA: 3.77/4.0**, Last Two Year GPA: 3.63/4.0, Overall GPA: 3.53(WES)/4.0, 3.48/4.0

Core Courses

- **Mathematics**: Linear Algebra (3.9/4.0), Advanced Mathematics(Calculus) (3.7/4.0), Probability Statistics (4.0/4.0), Special Function (3.7/4.0)
- **CSE**: Programming with C Language (3.7/4.0), Data Structure (3.7/4.0), Embedded System (3.9/4.0), System Design (3.7/4.0), Experiment in Data Structure (3.7/4.0), Digital System Design (3.7/4.0)

SCHOLARSHIPS & AWARDS

- **2023 Kaggle Silver Medal** (GoDaddy - Microbusiness Density Forecasting, **4%**)
- **2022 Tencent Excellent Code Award** (Tencent's highest reward for code contribution, **< 0.1%**)
- **2022 Tencent Code Committee Member** (Top organization for Tencent code review, **< 0.5%**)
- **2021, 2022 Tencent Outstanding Employee** (Top individual performance of employees, **5%**)
- **2021, 2022 Tencent Open Source Award** (Top open source collaboration of employees, **<0.5%**)
- **2017 16^{th} place** in the 3^{st} **Huawei Software Elite Challenge** (The highest software programming competition by Huawei for undergraduate students worldwide, **16/2000, 0.8%**)
- **2016 AEON Scholarship** (Highest scholarship in OUC sponsored by AEON Inc., **1%**)
- **2016 National First Prize, National Maritime Vessel Competition** (**5%**)
- **2016 Neusoft Scholarship** (Highest scholarship in OUC sponsored by Neusoft Inc., **5%**)
- **2015 National First Prize, China Undergraduate Mathematical Contest in Modeling (CUMCM)** (**< 0.5%**)
- **2015 OUC Student Special Prize for Scientific and Technological Achievements** (**< 0.1%**)
- **2014 National Encouragement Scholarship** (Highest scholarship awarded by the Chinese government, **4%**)

EXPERIENCE

Tencent Inc., Shenzhen, China
Senior Software Engineer*(T10), Platform and Content Group* *Dec, 2019 – Present*

- In the ad recommendation system, I applied a new framework AutoAttention (Automatic Field-Pair Selection for Attention) to represent user interests with all fields, which can avoid expert knowledge when selecting fields.
  - Pruning on weights automates the field pair selection, preventing performance deterioration due to introducing irrelevant field pairs.

  - AutoAttention is much more computationally efficient compared to traditional DNN-based models, which can be deployed in the real-world online advertising system.

- Developed the QQ Browser ad recommendation system, which includes ad recall, pre-ranking, ranking, content reordering, and other services, reaching over 500 million users
- Designed a rule engine and built an advertising strategy platform, governing various aspects such as ad form, advertising, and over 1,000 strategies. In the face of the massive and ever-changing advertising scenarios in QQ Browser, it enables the system modular, configurable, and expandable

JD Inc., Beijing, China
Software Engineer, Logistics Research and Development Department *Jul, 2018 – Nov, 2019*

- Designed a special genetic algorithm in goods delivery tasks to further optimize the allocation of delivery batches and route planning based on the results of the original non-heuristic algorithm. This optimization results in a 10% reduction in cost and a 30% reduction in run time.
- Developed an advanced distributed order task system to support the processing of billions of orders during the 11.11 shopping festival, enabling functions such as order distribution, splitting, exception handling, and feedback information
- Achieved a custom order protocol to handle excessively large order items, enabling message splitting, composition, and timeout retransmission. This approach saves millions of dollars in storage costs annually.

Huawei Inc., Suzhou, China
Intern Software Engineer, SDN Controller Development Department *Sep, 2017 – Dec, 2017*

- Summarized the core points of the SDN(Software-Defined Networking) architecture into two aspects from a system design perspective through comprehensive review of existing implementation methods
- Designed a novel management system, Agile Controller, based on the OpenFlow protocol to achieve unified traffic control and compatibility with devices from multiple vendors and models
- Abstracted intelligent control logic from hardware devices into multidimensional policies, enabling network programmability and making networks easier to configure, scale, and optimize

RESEARCH INTEREST

Fields	Recommendation, ML System, NLP
Methods	Deep Learning, Reinforcement Learning, Neural Networks

PROGRAMMING SKILLS

Languages	Go, Java, Python, SQL, Bash, LaTeX, Markdown, HTML
Frameworks	Tencent RPC, PyTorch, Tencent Tesla(ML System), MATLAB
Tools	GIT, Jupyter Notebook, ChatGPT, MySQL, Redis, MQ, Prometheus, Docker
Platforms	Anaconda, Linux, Web, Tencent Cloud, Windows, Mac
Soft Skills	Code Review, System Design, Leadership, Event Management, Technical Document