

XU YANG

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EDUCATION

Ocean University of China (OUC), P.R.China

Double Bachelor of Telecommunication Engineering / Marine Technology

- Major GPA: **3.77/4.0**, Overall GPA: 3.53/4.0, Last Two Year GPA: 3.63/4.0

Core Courses

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

Research Interest Data Mining, Recommender Systems, Artificial Intelligence

PUBLICATIONS & MANUSCRIPTS

- 1 **Xu Yang**, Guangyuan Yu , Jun He. UIPN: User Intent Profiling Network for Multi Behavior Modeling in CTR Prediction. Accepted by *2025 ACM International Conference on Web Search and Data Mining (WSDM2025, Acceptance Rate 17.3%)*.

RESEARCH EXPERIENCE

Tencent Inc., Shenzhen, China

QQ Browser Ad Development Team, Platform and Content Group

Dec, 2023 – Present

Project: UIPN: User Intent Profiling Network for Multi Behavior Modeling in CTR Prediction

- Identified limitations in existing click-through rate prediction methods through comprehensive analysis of user behavior patterns, revealing the need for personalized intent modeling across different interaction types
- Developed a novel UIPN framework featuring specialized user intent extractors and generators to effectively model complex dependencies between different types of user behaviors
- Achieved superior prediction accuracy on public datasets and significant performance improvements in real-world advertising systems

HONORS & AWARDS

- **2021, 2022 Tencent Open Source Award** (Top open source collaboration award in Tencent, < **0.5%**)
- **2023 Kaggle Silver Medal** (Microbusiness Density Forecasting Global Competition, **top 4%**)
- **2022 Tencent Excellent Code Award** (Highest reward for code contribution in Tencent, < **0.1%**)
- **2022 Tencent Code Committee Member** (Top organization for code review in Tencent, < **0.5%**)
- **2021, 2022 Tencent Outstanding Employee** (Top individual award in Tencent, **5%**)
- **2016 AEON Scholarship** (Highest scholarship in university sponsored by AEON Inc., **1%**)
- **2015 National First Prize, China Undergraduate Mathematical Contest in Modeling (CUMCM)** (147/25646, **1%**)
- **2015 OUC Student Special Prize for Scientific and Technological Achievements** (< **0.1%**)
- **2014 National Encouragement Scholarship** (Highest scholarship awarded by the Chinese government, **4%**)

OTHER PROJECT

Project: GoDaddy Microbusiness Density Prediction: Time Series Forecasting for County-Level Business Activity

- Conducted comprehensive exploratory data analysis on microbusiness density patterns across U.S. counties, uncovering key insights such as outlier counties and correlations with census variables
- Developed an advanced forecasting solution that integrated feature engineering techniques with decision trees to predict monthly microbusiness density at the county level
- Implemented innovative post-processing methods to adjust predictions based on population changes between 2022 and 2023, resulting in a significant enhancement of model performance

INDUSTRY EXPERIENCE

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

- In the QQ Browser advertising Click-Through Rate (CTR) prediction project, I participated in the improvement of the Deep Interest Network (DIN), proposing using advertising scenarios and user feature fields to optimize interest weight calculation. Additionally, I implemented automation in field selection to avoid reliance on expert knowledge. Ultimately, the Click-Through Rate (CTR) increased by 1.51%, Revenue Per Mille (RPM) increased by 0.5%, and annual total revenue increased by \$1 million
- Developed the incentive activity system for QQ Browser, with a peak request volume exceeding 100,000 QPS, reaching over 500 million users
- Designed a rule engine and built an advertising strategy platform based on it, achieving system modifiable and configurable, which saved 50% of redundant development. Currently, 1000+ advertising strategies and 100+ A/B experiments are running on the platform, generating a daily revenue of \$1 million

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

PROGRAMMING SKILLS

Languages Go, Python, Java, HTML, SQL, LaTeX, Bash, Markdown

Tools GIT, PyTorch, Jupyter Notebook, ChatGPT, MySQL, Redis, Kafka, Docker

LANGUAGE SKILLS

TOEFL iBT 93/120 (Reading 27, Listening 24, Speaking 21, Writing 21)

- **Best Score** 103/120 (Reading 30, Listening 26, Speaking 21, Writing 26)

GRE 325/340+4.0/6.0 (Verbal 155, Quantitative 170, Analytical Writing 4.0)