YANG Jiahao

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EDUCATION

The Chinese University of Hong Kong, Shenzhen   Sep 2022 - Jun 2026

Bachelor of Engineering in Computer Science and Engineering

- **Cumulative GPA:** 3.36/4.00
- **Relevant Course:** Data Structure, Design and Analysis of Algorithms, Database System, Computer Networks, Parallel Programming, Software Engineering, Computer Architecture, Operating System, Compiler Construction, Machine Learning, Optimization, Digital Logic & System, Embedded Systems (and Lab), Information Technology
- **Academic Performance:**
  - **Professional Courses:** Data Structures (A grade), Networks: Technology, Economics and Society (A grade), Design and Analysis of Algorithms (A- grade), Linear Algebra (A- grade), Discrete Mathematics (A- grade)
  - **Interdisciplinary Courses:** Our Dynamic Earth (A- grade), Morden Chinese History and Culture (A- grade)

INTERN EXPERIENCE

Baidu International Technology (Shenzhen) Co., Ltd.   Jun 2025 – Sep 2025

Golang Backend Developer Engineer (Intern)

- **Job description:**
  - Responsible for server-side related work of overseas business, including but not limited to core infrastructure development, API implementation, and platform construction.
  - Continuously optimize existing services and address system bottlenecks to enhance stability and performance.
  - Improve foundational components to better support business iteration.
- **Job achievement:**
  - To enhance the predictive capability of the company's existing CTR model, undertook five rounds of OEM feature engineering, cumulatively adding 132 feature fields to the model. By introducing richer contextual information, the model can more accurately capture the characteristics of user profiles and advertising scenarios, thereby improving the accuracy of click-through rate predictions.
  - Integrated core reusable utility functions into the code framework, such as implementations for cross-feature field operations, data binning, longest common substring, and longest common subsequence, which enhanced subsequent development efficiency.
  - During the code deployment, identified a critical issue of data ID inconsistent in the CTR model through feature field validation checks, which rendered 33 fields invalid. Promptly reported this matter to the supervisor and organized a meeting with the strategy and profiling departments to discuss collaboration on aligning and repairing the data ID issue, ensuring the validity of the model data.
  - Due to the excessively large user profile data from India and Indonesia, split the Redis cluster, and deployed a separate Redis cluster for these two regions, ensuring the stability and low latency of business services.
- **Tech Stack:** Golang, Baidu GDP (Go Develop Platform), Kubernetes, OpenRTB

Digital Jinhua Technology Operation Co., Ltd.   Jul 2024 - Aug 2024

Java Backend Developer Engineer (Intern)

- **Job description:** Assisted in maintaining the municipal government stability website developed by the company.
  - Redesigned the Post(position) Menu Update interface, implementing synchronization between role updates in the Post menu and the User menu role list.
  - Updated the Petition-Information Import interface, the new interface will return an Excel file with upload results and error details.
- **Tech Stack:** Java, MySQL, Redis, Spring Boot

RESEARCH EXPERIENCE

Undergraduate Research Assistant   Sep 2024 - Present

- **Advisor:** *Prof. Yu Tianshu (Assistant Professor), CUHK-Shenzhen*

- **Topic:** Mixed-integer linear programming (MILP) Instance Generators Benchmark
  - **Overview:** Introduce a comprehensive benchmark framework designed for the systematic and objective evaluation of MILP instance generation methods.
  - **Responsibilities:** Participated in the following team tasks
    - Conducted interpretation and analysis of previous MILP instance generator related papers and identified problems such as non-authoritative weight settings and inconsistent sampling in some papers.
    - Reproduced the MILP instance generators proposed by other researchers in their paper along with the designed benchmark experiments, to validate the code feasibility, accuracy of the experimental results, and the inherent limitations of the generator itself.
    - Co-designed and implemented our research group's MILP instance generator benchmark framework, utilizing Ecole and generators proposed by other researchers to generate test datasets, and validated the metrics and evaluated generators' performance within our benchmarking framework.
  - **Achievement:**
    - **Paper title:** *EVA-MILP: Towards Standardized Evaluation of MILP Instance Generation*
    - **Conference:** *ICLR 2026*, under review.
    - **Paper Link:** https://arxiv.org/abs/2505.24779
  - **Contribution:** Third author of the paper, jointly participated in coding work.

REPRESENTATIVE SCHOOL COURSES PROJECT

ISP Static & Dynamic Pricing Strategies (Group)   Mar 2025 - May 2025
- **Program description:** Simulated a simple network usage environment and designed three types of pricing algorithms for the virtual Internet service provider within it, aiming to alleviate congestion rates in the simulated network environment.
  - **Contribution:** Implemented two types of pricing algorithms (Static & Q-learning based); designed a metric (user satisfaction) to assist the team in evaluating the effectiveness of three types of pricing algorithms; integrated codes from other team members.
  - **Code:** https://github.com/LayOneA/Pricing-Algorithm-for-ISP

INTERNATIONAL EDUCATIONAL EXPERIENCE

The University of Hong Kong   Jul 2023
Data Science for Beginners: Theory, Algorithms and Applications
- **Programme introduction:** This summer programme was offered by *HKU Musketeers Foundation Institute of Data Science* (HKU IDS). *Prof. MA Yi* was the director and one of the programme Instructor. The project primarily taught foundational data-science knowledge, covering key topics such as Bayesian statistics, Network theory, and more.
- **Group work:** Collaborated with students from different top world universities, such as *NUS*, *ZJU*, *Soton*, to explore the impact of data science on Business & Finance. Our group investigated two specific examples: Customer Analytics and Algorithmic Trading. Our group delivered a public presentation at the end day of the programme.
- **Certificate Obtained:** Successfully completed all requirements and was awarded the Certificate of Attendance.

LEADERSHIP EXPERIENCE

Teach For China × CUHK-Shenzhen   Sep 2022-Sep 2024
- Assisted in organizing a letter exchange activity with rural children in Guangxi Province, successfully recruited more than 50 ideal volunteers to participate in the event.
- Led and planned a friendship activity "Sending Spring to You," which was jointly organized with the paper-making club of Xixiang Central Primary School in Gansu Province. The event attracted approximately 50 students to participate and received the Outstanding Club Activity Award of Teach For China for 2022-2023.
- Served as one of the club presidents during the second year joining in the organization, recruited over 10 new members, including an international student from the UK.

SKILLS

Languages: Mandarin, English
Programming Skills: Java, Golang, Python, C/C++, MatLab