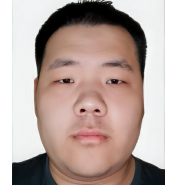


Yunbo Hou

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https://sorarain.github.io



EDUCATION

Peking University

Sep 2023 - Jul 2026

Master, Computer Science, School of Software and Microelectronics

GPA: 3.80

University of Electronic Science and Technology of China

Sep 2019 - Jul 2023

Bachelor, Artificial Intelligence, School of Computer Science and Technology

GPA: **3.99(1/65)**, CET-4: 557, CET-6: 535

PROFESSIONAL EXPERIENCE

KDD 2024: RoutePlacer: An End-to-End Routability-Aware Placer with Graph Neural Network(First author)

- We propose RoutePlacer to enable end-to-end routability optimization.
- We introduce RouteGNN to learn accurate routability estimations conditional on RouteGraph, an efficient heterogeneous graph structure with topological and geometrical features.
- We present a Differentiable Geometrical Feature Computation to enable gradient-based optimization.
- We evaluate RoutePlacer on DAC2012 and ISPD2011 benchmarks, based on DREAMPlace, an open-source EDA framework. RoutePlacer achieves a 16% reduction in Total Overflow while maintaining routed wirelength compared to DREAMPlace.

KDD 2025: Circuit Global Placement Generalization via Graph Neural Network(First author)

- We introduce TransPlace, the first learning-based framework for large-scale global placement.
- We propose a series of techniques—Netlist Graph modeling, Cell-flow, TPGNN, and a two-stage strategy—to enable and enhance large-scale inductive placement.
- We comprehensively evaluate TransPlace across four standard benchmarks, demonstrating that TransPlace can surpass state-of-the-art global placers with a 1.2x speedup, 30% less congestion, 9% better timing, and 5% shorter wirelength.

INTERNSHIP EXPERIENCE

Alibaba - Advertising Technology Department, Research Intern

Jul 2024 - Present

- We propose CausalRec, a CausalBoost attention model for the sequential recommendation that integrates the causality into the recommendation. To the best of our knowledge, this is the first model that incorporates causality through the attention mechanism into the sequential recommendation.
- The work has been submitted to KDD 2025 Feb.

AWARD EXPERIENCE

- Outstanding Undergraduate Thesis Award from University of Electronic Science and Technology of China
- Blue Bridge Cup National Software and Information Technology Professional Talent Competition National Second Prize
- Second Prize of Sichuan Province in the National College Student Mathematical Modeling Competition
- Meritorious Award in the American College Student Mathematical Modeling Competition

SKILLS LIST

Programming Languages: C++, Python

Deep Learning: skilled in deep learning frameworks such as PyTorch, Deep Graph Library(DGL), familiar with classical graph neural network architecture such as GCN, GraphSAGE, GIN, GAT