

# XIONGXIN YANG

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## EDUCATION

### University of California, Santa Barbara

Santa Barbara, CA, US

Ph.D. student in Computer Science

09/2025 - current

- Advisor: Prof. Eric Vigoda

### Northeast Normal University

Changchun, China

B.S. in Computer Science and Technology

09/2020 - 06/2024

- Advisor: Prof. Zhiguo Fu

## EMPLOYMENT

### The University of Hong Kong

Hong Kong SAR, China

Research Assistant hosted by Prof. Weiming Feng

05/2025 - 07/2025

### New York University Shanghai

Shanghai, China

Research Associate hosted by Prof. Jie Xue

10/2024 - 01/2025

## VISITING AND INTERNSHIP

### The University of Hong Kong

Hong Kong SAR, China

Visitor hosted by Prof. Weiming Feng

03/2025

### Nanjing University

Nanjing, China

Visiting Student hosted by Prof. Yitong Yin

04/2023

## SELECTED AWARDS AND SCHOLARSHIPS

### Presidential Scholarship

Northeast Normal University

rank 1 in the major

2022 & 2024

### National Scholarship

China

top scholarship in mainland China (0.2% national-wide)

2021

## RESEARCH ARTICLES

Authors are listed in alphabetical order.

● indicates conference publications, and ● indicates journal publications.

### [5] Near-Optimal Dynamic Data Structures for Maximum Depth and Klee's Measure of Boxes

Sujoy Bhore, Subhash Suri, Jie Xue, X. Yang, Jiumu Zhu

*Submitted*

#### [4] Learning CNF formulas from uniform random solutions in the local lemma regime

Weiming Feng, **X. Yang**, Yixiao Yu, Yiyao Zhang

[C] 58th Annual ACM Symposium on Theory of Computing (**STOC 2026**)

#### [3] Dynamic maximum depth of geometric objects

Subhash Suri, Jie Xue, **X. Yang**, Jiumu Zhu

41st International Symposium on Computational Geometry (**SoCG 2025**)

- Invited to SoCG special issue (regretfully declined)

#### [2] Spectral Independence Beyond Total Influence on Trees and Related Graphs

Xiaoyu Chen, **X. Yang**, Yitong Yin, Xinyuan Zhang

2025 ACM-SIAM Symposium on Discrete Algorithms (**SODA 2025**)

#### [1] Beyond windability: Approximability of the four-vertex model

Tianyu Liu, **X. Yang**

*Theoretical Computer Science*, Volume 995 (2024), Article 114491

## TRANSLATIONS

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All translations are in Simplified Chinese.

#### [1] The Art of Computer Programming, Volumn 4B: Combinatorial Algorithms, Part 2

《计算机程序设计艺术 卷4B：组合算法（二）》

Author: Donald E. Knuth

Translators: **X. Yang**, Guang Hu, Xihan Li, Fei Liu

Publisher: Posts & Telecommunications Press (ISBN: 978-7-115-66633-8)

## TALKS

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- **Dynamic Maximum Depth of Geometric Objects**

- The 41st International Symposium on Computational Geometry (SoCG 2025)

25/06/2025 @ Kanazawa, Ishikawa Prefecture, Japan

- The 16th Annual Meeting of Asian Association for Algorithms and Computation (AAAC 2025)

31/05/2025 @ The City University of Hong Kong, Hong Kong SAR, China

- **A Glimpse into the Theory World**

- Information Science Academic Forum (in Chinese)

11/04/2025 @ Northeast Normal University, Changchun, China

- **Approximability of the Four-Vertex Model**

- NYUSH Theory Lunch

21/10/2024 @ New York University Shanghai, Shanghai, China

## ACADEMIC SERVICE

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- Conference Reviewing: SoCG (2025), WWW (2026)