

WEN-HORNG SHEU

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Links: Personal Website [!\[\]\(666e09182d4cd268646ea700ea60dcdf_img.jpg\)](#) LinkedIn [!\[\]\(1ef1ef0bf9af6c6996401964cf280f2d_img.jpg\)](#)

RESEARCH EXPERIENCE

Graduate Research Assistant

University of California, Davis

2023 - Present

Davis, CA

- Research area: distributed algorithms, streaming algorithms.
- Studied the maximum matching problem in distributed and streaming settings.

Research Assistant

National Tsing Hua University

2021 - 2023

Hsinchu, Taiwan

- Research area: parameterized algorithms, computational biology.
- Proposed new algorithms for problems that have applications in cancer genomics and phylogenetic analysis.
- Created problems for the International Collegiate Programming Contest (ICPC).

PUBLICATIONS

1. Parameterized Complexity for Finding a Perfect Phylogeny from Mixed Tumor Samples

Wen-Horng Sheu and Biing-Feng Wang (contribution-based order)

SIAM Journal on Discrete Mathematics (SIDMA), 2023

2. New Algorithms for Constructing Frequency Difference Consensus Trees

Biing-Feng Wang, Chih-Yu Li, and Wen-Horng Sheu (contribution-based order)

IEEE Transactions on Computational Biology and Bioinformatics (TCBB), 2025

RECENT MANUSCRIPTS

Following the convention in theoretical computer science, author names are ordered alphabetically (unless stated otherwise).

1. A framework for boosting matching approximation: parallel, distributed, and dynamic

Slobodan Mitrović and Wen-Horng Sheu

Submitted, 2025

2. Faster Semi-streaming Matchings via Alternating Trees

Slobodan Mitrović, Anish Mukherjee, Piotr Sankowski, and Wen-Horng Sheu

Submitted, 2024

Note: This paper was accepted as a contributed talk at Workshop on Local Algorithms (WoLA) 2024, in the title “Toward Optimal Semi-streaming Algorithm for $(1 + \epsilon)$ -approximate Maximum Matching”.

3. Faster MPC Algorithms for Approximate Allocation and Matching in Uniformly Sparse Graphs

Jakub Łącki, Slobodan Mitrović, Srikanth Ramachandran, and Wen-Horng Sheu

Submitted, 2024

4. Kernelization and Approximation Algorithms for Finding a Perfect Phylogeny from Mixed Tumor Samples

Wen-Horng Sheu and Biing-Feng Wang (contribution-based order)

Submitted, 2023

EDUCATION

PhD in Computer Science at the University of California, Davis *2023-Present*
GPA: 4.0/4.0

Master of Computer Science at National Tsing Hua University *2019-2021*
GPA: 3.9/4.0

Bachelor of Computer Science at National Tsing Hua University *2015-2019*
GPA: 3.85/4.0

HONORS AND AWARDS

- **Contributed Talk** at *Workshop on Local Algorithms, 2024*
hosted by *Simons Institute for the Theory of Computing, UC Berkeley*
 - Presented our recent result, an improved algorithm for $(1+\epsilon)$ -approximate maximum matching on streaming and distributed computational models.
- **Gold Award** in *the 2019 ICPC Asia Pacific Taipei-Hsinchu Regional Contest*
- **Google Code Jam 2021 Round 3 Qualifier**
 - Placed 255-th in Round 3, within top 1% of all 37,000+ participants of the qualification rounds
- **Second Place Award** in *the ACM TAU 2018 Contest on Path Reporting*
- **Grandmaster** on *Codeforces*
 - Codeforces is a prestigious online competitive programming platform.
 - Ranked as a grandmaster (max rating 2551), top 1% globally
 - Placed top 100 (out of 10,000+ contestants globally) in four different contests
- **Meta Hacker Cup 2020 Round 2 Qualifier**
 - Placed 264-th in Round 2, better than 32,000+ contestants who participated in the qualification round.

TEACHING EXPERIENCE

Teaching Assistant

University of California, Davis

Davis, CA

- TA for Algorithm Design and Analysis (Summer Session I 2024)
- TA for Special Topics in Theoretical Computer Science (Winter 2023)

Teaching Assistant

National Tsing Hua University

October 2021 - March 2023

Hsinchu, Taiwan

- TA for Computational Geometry (Spring 2022, Spring 2020)
- TA for Parallel Algorithm Design (Spring 2022, Fall 2019)
- TA for Design and Analysis of Algorithms (Fall 2021, Fall 2020, Fall 2019)

SKILLS

Coding Languages

C, C++, Python

Tools

Git, L^AT_EX, Microsoft Office

Languages

English (fluent), Chinese (native)