

# SHAO-HENG KO

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## EDUCATION

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### Duke University

2020 - now

- Ph.D. program, Computer Science, advisor: Kristin Stephens-Martinez
- Certificate in College Teaching program

### National Taiwan University

2011 - 2017

- M.S., Graduate Institute of Electrical Engineering, advisor: Ho-Lin Chen
- B.S., Electrical Engineering

## EXPERIENCE

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### Research Assistant, Inst. Information Science, Academia Sinica

2017 - 2020

- Research area: approximation algorithms and social network

### Massive Open Online Courses Explorer, Lab. Teaching Innovation, NTU

2015 - 2017

- Manufacturing NTU MOOCs on Coursera
- Designed and produced mini-MOOC prototypes, exhibited in ZaShare 2017
- Wrote column pieces to promote online learning
- Co-organized and paneled the “Why MOOCs” workshop

## PUBLICATIONS

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7. C.-Y. Shen\*, S.-H. Ko\*, G.-S. Lee, D.-N. Yang, and W.-C. Lee. *Density Personalized Group Query*. to appear in VLDB 2023.
6. S.-H. Ko, K. Stephens-Martinez. *What Drives Students to Office Hours: Individual Differences and Similarities*. to appear in ACM SIGCSE 2023.
5. S.-H. Ko\*, E. Taylor\*, P. K. Agarwal, K. Munagala. *All Politics is Local: Redistricting via Local Fairness*. NeurIPS 2022.
4. S.-H. Ko, K. Munagala. *Optimal Price Discrimination for Randomized Mechanisms*. ACM EC 2022.
3. P. K. Agarwal, S.-H. Ko, E. Taylor, K. Munagala. *Locally Fair Partitioning*. AAAI 2022.
2. S.-H. Ko, H.-C. Lai, H.-H. Shuai, D.-N. Yang, W.-C. Lee, and P. S. Yu. *Optimizing Item and Subgroup Configurations for Social-Aware VR Shopping*. VLDB 2020.
1. S.-H. Ko, Y.-C. Lin, H.-C. Lai, W.-C. Lee, and D.-N. Yang. *On VR Spatial Query for Dual Entangled Worlds*. ACM CIKM 2019.

\*Equal contribution.

## AWARDS AND HONORS

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Bass Instructor of Record Fellowship

The Graduate School, Duke, AY 2023-24

Outstanding Teaching Award

Department of Computer Science, Duke, 2021

Best Master Thesis (Title: Encouraging Peer Grading in MOOCs)

GIEE, NTU, 2017

## TEACHING EXPERIENCES (\*INCLUDING LECTURING)

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CS216 Everything Data, <i>Duke</i>	[Spring 23] [Fall 22]
CS330 Intro to the Design and Analysis of Algorithms*, <i>Duke</i>	[Fall 21] [Fall 20]
CS230 Discrete Mathematics*, <i>Duke</i>	[Spring 21]
EE5182 Advanced Algorithms, <i>NTU</i>	[Spring 17]
EE5048 The Design and Analysis of Algorithms, <i>NTU</i>	[Fall 16] [Fall 15]
EE2008 Discrete Mathematics*, <i>NTU</i>	[Spring 16]

## ACADEMIC SERVICES

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Reviewer, ACM SIGCSE	2022
Reviewer, IEEE GLOBECOM	2018

## MISCELLANEOUS

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**Co-editor** of *Benson's amazement in probability*, a bestseller collection of self-proposed peer-assessment problems in flipped-classroom undergraduate probability classes in Taiwan. ISBN: 9789861371832