# Yongwhan Lim

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Citizenship Status

Permanent Resident of the United States of America.

Citizen of the Republic of Korea.

Education Massachusetts Institute of Technology

Ph.D. (started, but did not finish) Operations Research

Advisor: Asuman Ozdaglar

2013 Kwanjeong Scholarship recipient, for the entire duration of Ph.D.

Stanford University 9/2007 - 1/2013

M.S. Computer Science (AI Track)

B.S. Honors Computer Science (AI Track) and Mathematics

Advisors: Fei-Fei Li and Persi Diaconis

Languages C++ w/ the Standard Template Library.

Comfortable with Java, Go, Python, SQL, Angular Dart, MATLAB, and R.

Fluent in English and Native in Korean.

Professional Experience

Two Sigma Investments Senior Quantitative Software Engineer

7/2022 -

Google Tech Lead; Research Software Engineer; Software Engineer;

10/2016 - 6/2022

9/2013 - 1/2016

Research Assistant (MIT) Optimization & Network Game Theory Group Fall 2013 - Fall 2015

Software Development Engineer Intern (Microsoft)

Summer 2012

Research Assistant (Stanford) Computer Vision Lab

Fall 2009 - Fall 2011

# Teaching Experience

Rated 5.0/5 at Columbia University based on 54 reviews https://www.ratemyprofessors.com. All official course evaluations from Columbia University can be found in link.

### Spring 2023

Lecturer (MIT)

Associate in Computer Science (Columbia)

Competitive Programming (COMS 4995-8; 135 students + 6 observers)

## Independent Activities Period (IAP) 2023

Lecturer (MIT)

Problem Solving Strategies for Technical Interviews (162 students interested)

#### Fall 2022

Lecturer (MIT)

Associate in Computer Science (Columbia)

Technical Interview Preparation in C++ (COMS 4995-7; 48 students + 74 observers)

Course Evaluation (Overall Instructor Quality): **4.83**/5 from 29 students out of 48 students Competitive Programming (COMS 4995-8; 55 students + 50 observers)

Course Evaluation (Overall Instructor Quality): **4.70**/5 from 43 students out of 52 students **Visiting Instructor** (Cornell-Tech)

Special Workshop Series in Technical Interview Preparation (148 students + 1 observer)

### Summer 2022

Lecturer (MIT)

Develop MITx MicroMasters working with Professors Aleksander Madry and Asuman Ozdaglar.

**Research Mentor** (Harvard) Summer Introduction to Mathematical Research (SIMR) Program Lecture on network flows

Mentor undergraduate math majors on quantitative analysis in finance.

# Spring 2022

Associate in Computer Science (Columbia)

Technical Interview Preparation in C++ (COMS 4995-13; 52 students + 80 observers)

Course Evaluation (Overall Instructor Quality): 4.91/5 from 45 students out of 52 students

Visiting Lecturer (Cornell-Tech) Deep Learning (CS 5787)

### Fall 2021

Lecturer (CSU Sacramento) Introduction to C Programming (CSC 25)

Lecturer (SJSU) Introduction to the Design and Analysis of Algorithms (CS 155)

Lecturer (CSU East Bay) Professional Development in Computer Science (CS 497)

### **Summer 2021**

Lecturer (UC Santa Cruz) Beginning Programming in Python (CSE 20)

#### Spring 2021

Lecturer (UC Santa Cruz) Beginning Programming in Python (CSE 20)

Lecturer (CSU East Bay) Professional Development in Computer Science (CS 497)

### Fall 2020

Guest Lecturer (Harvard) Advanced Practical Data Science (AC 295)

Guest Lecturer (UC Davis) Software Engineer Early Career Planning (ECS 198)

### Fall 2011

Teaching Assistant (Stanford) Introduction to Computer Vision (CS 231A)

### Fall 2008 – Spring 2012

Grader (Stanford) Department of Mathematics

**Tutor** (Stanford) Department of Mathematics

#### Invited Talks Special Workshops on Technical Interviews [slide decks] Stanford University Spring 2023: Online Technical Interview Bootcamp? (host: Trudy Gonzalez) Winter 2023: Stanford Alumni Association (host: Michelle Badger) 2/22/2023 & 3/8/2023 Winter 2023: Stanford Computer Forum (host: Trudy Gonzalez) 1/19/2023 & 1/26/2023 Fall 2022: Stanford Computer Forum (host: Trudy Gonzalez) 10/5/2022 & 10/6/2022 Carnegie Mellon University – Silicon Valley Spring 2023: CMU Career Services (host: Leigh Mason) 1/19; 2/4; 2/18; 3/4; 3/18; 4/1; 4/15 Fall 2022: CMU Career Services (host: Leigh Mason) 10/6/2022 & 11/11/2022 Fall 2021: CMU Career Services (host: Leigh Mason) 9/7/2021 & 10/5/2021 & 10/14/2021 Spring 2021: CMU Career Services (host: Leigh Mason) 2/25/2021 University of California – Berkeley (host: Park Sinchaisri) 11/21/2022 University of California – San Diego (host: Jingbo Shang) 10/14/2022 & 10/21/2022 Harvard University (host: Office of Career Services) 10/14/2022 University of Southern California 3/28/2023 - 4/2/20223Spring 2023: Computer Science (host: Cristina Fong) 11/18/2022 & 11/19/2022 Fall 2022: Computer Science (host: Cristina Fong) 3/3/2023 & 3/4/2023 Purdue University (host: Ninghui Li) University of Central Florida ICPC Training Camp (host: Ali Orooji and Arup Guha) 3/21/2023 - 3/24/2023National University of Singapore Spring 2023: Computer Science (host: Steven Halim) 2/21/2023 & 2/23/20223 Fall 2022: Computer Science (host: Steven Halim) 9/21/2022 & 9/22/2022

# "CS is a Dream Come True!" [slide deck]

Seoul National University (host: Taesup Moon)

KAIST (host: Juho Kim)

**UNIST** (host: Myeongjae Jeon)

Michigan Math and Science Scholars (host: Mark Conger) 7/7/2022 Columbia Research Symposium (host: Emerging Scholars Program) 4/22/2022

8/17/2022 & 8/18/2022

8/24/2022 & 8/25/2022

9/28/2022 & 9/29/2022

# Coaching Experience

### Judge

International Collegiate Programming Contest (ICPC) North America Qualifier 1	0/2022 -
ICPC Greater New York Regional	2/26/2023
ICPC Mid-Central Regional	0/2022 -

Intern Lead

The exact number of interns in 2023 internship is to be determined, but  $\approx 40$ .

ICPC Online Training in Competitive Programming

1/14/2023 -

12/2022 -

Weekly Saturday ICPC Intern Sync-up from 9am ET to 11am ET.

Weekly Saturday ICPC Practice Contests from 12pm ET to 5pm ET.

Weekly Saturday ICPC Masterclass from 7pm ET to 10pm ET.

Introductory session for the first half and advanced session for the second half.

### Head Coach Columbia ICPC [link]

2/2022 -

111 members (3 world finalists) and growing.

Officially sponsored by Two Sigma and Tesla. Soon to be officially sponsored by more companies. Weekly Sunday ICPC Practice Contests from 12pm ET to 5pm ET. Fall 2022 -Weekly Saturday ICPC Practice Contests from 12pm ET to 5pm ET. Summer 2022 2022 Columbia University Local Contest (CULC) is organized. 9/25/2022 Columbia-fortcoders qualified to 2022 ICPC World Finals, to be held in 11/2023. 5/30/2022 Columbia-fortcoders finished 8th in 2022 NAC. 5/30/2022 Columbia-fortcoders is invited to 2022 North America Championship (NAC). 3/6/2022 Columbia-fortcoders is invited to 2022 North America Programming Camp (NAPC). 3/6/2022 Columbia-fortcoders won 2021 ICPC North America Greater New York Regionals. 3/6/2022 13 Columbia teams represented in 2021 Greater New York ICPC Regionals. 3/6/2022

# Research Mentoring Experience

## Spring 2023

Alessandro Barbiellini Amidei (Harvard: Math AB '25 [Spring]) John Michael Boesen (Harvard: Applied Math + CS AB '25 [Spring])

Tobias Hanl (Columbia: SEAS CS MS '23 [Fall]; co-advised with Professor Zhou Yu)

# Fall 2022

Alessandro Barbiellini Amidei (Harvard: Math AB '25 [Spring])

John Michael Boesen (Harvard: Applied Math + CS AB '25 [Spring])

Samanway Sadhu (Columbia: SEAS CS MS '22 [Fall]; co-advised with Professor Suman Jana)

Tobias Hanl (Columbia: SEAS CS MS '23 [Fall]; co-advised with Professor Zhou Yu)

Ziwei Han (Columbia: SEAS CS MS '22 [Fall]; co-advised with Professor Lydia Chilton)

### **Summer 2022**

Alessandro Barbiellini Amidei (Harvard: Math AB '25 [Spring])

Iris Lang (Harvard: Statistics + CS AB '25 [Spring])

Will Hahn (Harvard: AB '25 [Spring])

Jarell Cheong Tze Wen (Harvard: Math AB '25 [Spring])

AnaMaria Perez (Harvard: Math AB '24 [Spring])

Mayesha Soshi (Harvard: Applied Math AB '24 [Spring])

Andrew Van Camp (Harvard: Applied Math AB '23 [Spring])

Summer 2018

Q1 2023 (TBD)

### **Fall 2022** (24 Students)

Adrian-Petru Surani (Cornell-Tech: CS MS '23 [Spring]; TBD)

Chiamaka Chukwuka (Columbia: SEAS CS BS '23 [Spring]; Full-time at Google)

Christopher Yoon (Columbia: CC CS BA '24 [Spring]; 2023 Internship at Virtu)

Elijah Journey Fullerton (Columbia: CC IS BA '24 [Spring]; TBD)

Ethan Zachary Turok (Columbia: SEAS CS BS '23 [Spring]; TBD)

Eumin Hong (Columbia: CC CS BA '23 [Spring]; Full-time at The Voleon Group)

Gaurav Sinha (Columbia: SEAS CS MS '22 [Fall]; TBD)

Gilead Turok (Columbia: CC CS + Applied Math (double) BA '23 [Spring]; TBD)

Guoxin Yin (Columbia: SEAS CS MS '22 [Fall]; TBD)

Hanfang Luo (Columbia: CC CS BA '24 [Spring]; 2023 Internship at Amazon)

JaeEun Lee (Cornell-Tech: CS MEng '23 [Spring]; Full-time at Veeva Systems)

Jiaqing Chen (Columbia: SEAS CS MS '22 [Fall]; Full-time at Goldman Sachs)

Mauricio Gonzalez (Columbia: CC CS BA '23 [Fall]; TBD)

Nilaksh Agarwal (Columbia: SEAS CS MS '22 [Fall]; TBD)

Pingyue (Pamela) Pan (Cornell-Tech: Information Systems MS '24 [Spring]; TBD)

Rong Bai (Columbia: SEAS CS MS '22 [Fall]; Full-time at U.S. Bank)

Shihao Wang (Columbia: SEAS CS MS '22 [Fall]; Full-time at Amazon)

Subin Yun (Cornell-Tech: Information Systems MS '24 [Spring]; TBD)

Suro Lee (Columbia: SEAS CS MS '23 [Fall]; TBD)

Venkat Ramamoorthi (Columbia: GS CS BA '23 [Spring]; TBD)

Wenqing Zhong (Columbia: SEAS CS BS '22 + MS '23 [Spring]; TBD)

Xiaoyu Liu (Columbia: SEAS EE MS '22 [Fall]; Full-time at Veeva Systems)

Yin Zhou (Columbia: SEAS Applied Math PhD '25 [Spring]; TBD)

Ziwei Han (Columbia: SEAS CS MS '22 [Fall]; Fulltime at IXL Learning)

### Spring 2022 (13 Students)

Anais Lawson (Columbia: SEAS CS BS '23 [Spring]; 2023 Internship at Microsoft)

Andreas Cheng (Columbia: GS CS BA '22 [Spring]; Full-time at IXL Learning)

Andrew Sirenko (Columbia: SEAS CS BS '23 [Spring]; Full-time at Amazon)

Benjamin Snyder (Columbia: SEAS CS BS '22 [Spring]; Full-time at Google)

Danrui Yu (Columbia: SEAS CS MS '22 [Spring]; Full-time at Google)

Ian Dorian Macleod (Columbia: SEAS CS BS '23 + MS '23 [Spring]; Full-time at Scale AI)

Olivia Zhang (Columbia: SEAS CS BS '22 [Spring]; Full-time at Goldman Sachs)

Sri Hari Thikkireddy (Columbia: SEAS CS MS '22 [Spring]; Full-time at Google)

Tim Kao (Columbia: SEAS CS MS '22 [Spring]; Full-time at Google)

Xijiao Li (Columbia: SEAS CS BS '21 + MS '22 [Spring]; Full-time at Google)

Yuqi Zhang (Columbia: SEAS CS BS '22 [Spring]; Full-time at TikTok)

Zhen Lei (Columbia: SEAS CS MS '22 [Spring]; Full-time at Amazon)

Zhihao Jiang (Columbia: SEAS CS MS '22 [Spring]; Full-time at Amazon)

### Résumé Critiques

150+ résumés

### 45-Minute Mock Interviews

50+ sessions

4/2019 -Community Emma Nieh

10/2022 -3/2022 -

Bolim Lee (University of London; CS BSc '25; TBD)

Soyeon Wang (San Jose State University CS BS '21; Full-time at Amazon) 4/2019 - 12/2020

Community	
Service	

Leadership

Experience

Presenter (Two Sigma: Work in Progress) 10/20/2022 Program Committee 8/2022 -ACM SIGCSE Technical Symposium 2023 (Panels) ACM ITiCSE 2023 (Full Papers) Discord Channel Owner 3/2022 -CodeForces Zaelots: 87 members and growing! Problem Solving Warriors: 323 members and growing! Hedge Funds Warriors: 237 members and growing! ICPC Training Warriors: 190 members and growing! Cornell Tech Interview Prep Workshop: 100 members and growing! Stanford University Outreach Volunteer Alumni Link (OVAL) Interviewer 1/2022 -Volunteered to conduct 30+ alumni interviews in NY, NJ, and MA chapters. Tech Lead (Google Kick Start Practice Rounds) 10/2020 - 11/2021Selected problems to use in the practice round. Set up contest dashboards for participants to use. Mentored engineering volunteers in order to guide them to complete their tasks. Appeared on videos to go over the solutions to problems and introduce the program. Software Engineer Interviewer (Google) 2017 - 2022Volunteered to conduct 55+ interviews at Google. Software Engineer Instructor (New Community Baptist Church) 4/2019 - 12/2020Taught C++, algorithms, and computer science mathematics ground-up, 4 hours every Saturday. Created course syllabus outlining the entire contents of the course. Created slides weekly following the syllabus and presented them to students. Assigned homework weekly and discussed its solutions the following week. Discussed problem solving strategies: data structure, graph, math, string, and geometry. Competitive Programming Group Founder (Google) 11/2017 - 1/2021Created an internal group in Google for those who want to excel in programming contests. Met twice each weekday, two hours each: 8am and 5pm. Google Code Jam Monitor (Google) 2018 - 2022Google Code Jam is an annual programming contest to recruit software engineers at Google. Monitored to answer questions contestants asked during the live contest. Technical Committee (MIT Digital Learning Lab) 10/2022 -Co-lead w/ Rachel Krohn (ICPC: New Coach Document Committee) 10/2022 -Co-lead w/ Etienne Vouga (ICPC: Curriculum Committee) 7/2022 -East-Coast President (Kwanjeong Scholarship) Academic Year (AY) 2013 Social Chair/Webmaster (Stanford) Symphony Orchestra AY 2010 & 2011 Vice-President (Stanford) Mathematics Organization AY 2009

Webmaster/Historian Director (Stanford) Korean Student Association

11/2022 -

10/2022 -

AY 2009

Member (Two Sigma: ACE Working Group: Design Questions)

Co-Instructor w/ Joseph Swernofsky (Two Sigma: Competitive Programming)

## Selected Publications

**Operations Research** (MIT) Yongwhan Lim, Asuman Ozdaglar, and Alexander Teytelboym. "Competitive rumor spread in social networks."

ACM SIGMETRICS Performance Evaluation Review 44.3 (2017): 7-14.

Operations Research (MIT) Yongwhan Lim, Asuman Ozdaglar, and Alexander Teytelboym. "A simple model of cascades in networks."

Mimeo. 2015.

Computer Vision (Stanford) Li-Jia Li, Hao Su, Yongwhan Lim, and Li Fei-Fei.
"Object Bank: An Object-Level Image Representation for High-Level Visual Recognition."
International Journal of Computer Vision (IJCV). 2013.

Computer Vision (Stanford) Li-Jia Li, Hao Su, Yongwhan Lim, and Li Fei-Fei.

"Objects as Attributes for Scene Classification."

First International Workshop on Parts and Attributes.

European Conference on Computer Vision (ECCV). 2010.

Computer Vision (Stanford) Li-Jia Li, Chong Wang, Yongwhan Lim, David Blei and Li Fei-Fei. "Building and Using a Semantivisual Image Hierarchy." IEEE Computer Vision and Pattern Recognition (CVPR). 2010.

Mathematics (Stanford) Yongwhan Lim. "Symmetry Groups of Platonic Solids."

Mimeo. 2008.

# Research Experience

Optimization & Network Game Theory (Asuman Ozdaglar, MIT)

Markov Chain & Mixing Time Analysis (Persi Diaconis, Stanford)

Winter 2010 - Fall 2012

Stanford Computer Vision Lab (Fei-Fei Li, Stanford)

Fall 2009 - Fall 2011

Analytic Number Theory (Kannan Soundararajan, Stanford)

Fall 2008 - Summer 2009

### Scholarships and Awards

**Kwanjeong Scholarship** – Received a major scholarship from Korea in 2013.

ACM-ICPC Pacific Northwest Regional Contest – Ranked 7th in 2012, 9th in 2011;

Google Code Jam - Advanced to 2012 Online Round 2 (Top 3000).

Facebook Hacker Cup — Advanced to 2011 Online Final. Won t-shirt in 2015 (Top 500); 2020. TopCoder Open — Won t-shirt by solving a problem in 2019 Round 3 (Top 400).

Mathematical Contest in Modeling – Won 2009 Meritorious Prize.

Putnam Mathematics Competition – Won 2008 Highbridge Book Awards (Top 65 at Stanford). Michigan Mathematics Prize Competition – Ranked 2<sup>nd</sup> (Gold Award) out of 9.3K+ in 2007.