# Christian Yongwhan Lim

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Citizenship Status **US** Citizen

Education

Massachusetts Institute of Technology

9/2013 - 1/2016

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

Advisor: Asuman Ozdaglar

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

Stanford University

9/2007 - 1/2013

M.S. Computer Science (CS) (AI Track)

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

Advisors: Fei-Fei Li and Persi Diaconis

Professional Experience Christian and Grace Consulting LLC

4/2023 -

Owner (Co-Founder)

Two Sigma Investments

7/2022 - 2/2023

Senior Quantitative Software Engineer

Google

10/2016 - 6/2022

Tech Lead (Google Kick Start Practice Rounds)

Research Software Engineer (Google Research Brain and Machine Learning)

Software Engineer (Google Ads and Core)

Languages

C++

Fluent in English

Native in Korean

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Selected
Teaching
Experience
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#### Fall 2024 (to be confirmed)

## Associate in Computer Science (Columbia)

Competitive Programming (COMS 4995-7)

Advanced Topics in Competitive Programming (COMS 6998-4)

Co-instructing with Josh Alman

### Summer 2024 (to be confirmed)

## Summer High School Academic Program for Engineers [SHAPE] (Columbia)

Session 1: Competitive Programming: Intro to the Art of Problem Solving

Session 2: Competitive Programming: Beyond the Basics

### Spring 2024

### Associate in Computer Science (Columbia)

Competitive Programming (COMS 4995-2)

## Science Honors Program [SHP] (Columbia)

Introduction to Algorithms

### Fall 2023

### Associate in Computer Science (Columbia)

Technical Interview Preparation in C++ (COMS 4995-4)

Competitive Programming (COMS 4995-5)

# Visiting Instructor (Cornell-Tech)

Special Workshop Series in Technical Interview Preparation

### Spring 2023

Lecturer (MIT)

# Associate in Computer Science (Columbia)

Competitive Programming (COMS 4995-8)

## Independent Activities Period (IAP) 2023

Lecturer (MIT)

Problem Solving Strategies for Technical Interviews

### Fall 2022

Lecturer (MIT)

#### Associate in Computer Science (Columbia)

Technical Interview Preparation in C++ (COMS 4995-7)

Competitive Programming (COMS 4995-8)

#### Visiting Instructor (Cornell-Tech)

Special Workshop Series in Technical Interview Preparation

#### **Summer 2022**

Lecturer (MIT)

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

Research Mentor (Harvard) Summer Introduction to Mathematical Research (SIMR) Program

Lectured on network flows

Mentored undergraduate math majors on quantitative analysis in finance.

#### Spring 2022

### Associate in Computer Science (Columbia)

Technical Interview Preparation in C++ (COMS 4995-13)

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

Selected Invited Workshops

#### Stanford University Winter 2024 Stanford ICPC (host: Nikil Selvam) 4/26/2024 Stanford Computer Forum (host: Trudy Gonzalez) 4/25/2024 Fall 2023 Stanford ICPC (host: Konstantin Miagkov) 10/11/2023 10/19/2023 & 10/26/2023 Stanford Computer Forum (host: Trudy Gonzalez) Stanford Institute for Computational and Mathematical Engineering 10/20/2023 Stanford Alumni Association (host: Michelle Badger) 10/11/2023 Winter 2023 Stanford Alumni Association (host: Michelle Badger) 2/22/2023 & 3/8/2023 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 Career Services (host: Leigh Mason) Fall 2023 9/15/2023 10/6/2022 & 11/11/2022 Fall 2022 Fall 2021 9/7/2021 & 10/5/2021 & 10/14/2021 Spring 2021 2/25/2021 **Princeton University** (host: Pedro Paredes) 10/25/2023 New York University (host: Ernest Davis) 4/14/2023 Swarthmore College (host: Joshua Brody) 4/28/2023 & 9/29/2023 University of California Los Angeles (host: UCLA ACM) 4/6/2023 & 4/7/2023 University of California Berkeley Fall 2023 (host: Xavier Plourde) 10/14/2023 Fall 2022 (host: Park Sinchaisri) 11/21/2022 University of California San Diego (host: Jingbo Shang) 5/3/2024 & 5/10/2024 Spring 2024 Fall 2023 10/14/2023 & 10/21/2023 Fall 2022 10/14/2022 & 10/21/2022 University of Illinois Urbana Champaign (host: Mattox Beckman) 5/1/2024 Spring 2024 Fall 2023 9/22/2023 Spring 2023 4/12/2023 & 4/13/2023 University of Texas Austin (host: Etienne Vouga) 4/8/2023 & 4/9/2023 University of Southern California (host: Computer Science) 11/18/2022 & 11/19/2022 Purdue University (host: Ninghui Li) 3/3/2023 & 3/4/2023 Harvard University (host: Office of Career Services) Fall 2023 10/18/2023 Fall 2022 10/14/2022 University of Chicago (host: Ziyi Zhang) 10/21/2023 Stony Brook University (host: Rezaul Chowdhury) Spring 2024 4/2/2024 Fall 2023 9/13/2023 & 9/20/2023 Georgia Institute of Technology (host: Maxwell Zhang) 9/13/2023 University of Waterloo 10/04/2023 McGill University 11/24/2023 KTH Royal Institute of Technology 6/12/2023 National University of Singapore (host: Steven Halim) 9/2022 & 2/2023 Seoul National University (host: Taesup Moon) 8/24/2022 & 8/25/2022 KAIST (host: Juho Kim) 8/17/2022 & 8/18/2022

Problem Solving Groups	Carnegie Mellon University Problem Solving Discussion Group (Weekly)	6/2023 —
	Massachusetts Institute of Technology MIT Problem Solving (PS) Club (Weekly) 3/22/2023	- <i>11/2/2023</i>
		3 - 10/2023 - 6/4/2023 3/9/2023
Programming Training Camps		- 3/31/2024 - 3/25/2023
Invited Talks	Columbia University Science Honors Program Plenary Columbia University Korean Graduate Student Association (KGSA) Career Panel	2/10/2024 3/31/2023
	Keynote  Columbia University Application Development Initiative (ADI)  Competitive Programming Primer	2/22/2023

Columbia Research Symposium (host: Emerging Scholars Program)

Massachusetts Institute of Technology Open Learning

 ${\bf Massachusetts\ Institute\ of\ Technology\ Digital\ Learning\ Lab}$ 

 ${\bf Michigan\ Math\ and\ Science\ Scholars\ (host:\ Mark\ Conger)}$ 

4/22/2022

3/8/2023

2/8/2023 7/7/2022

ICPC Experience	Co-Lead ICPC World Finals Competitive Learning Institute (CLI) Symposium Education Initiative Curriculum Committee at ICPC North America	4/2024 2022 —
	Internship Manager  Interns secured full-time positions including Google, Amazon, Point72  Manage five different projects by the project leads  (Lisa Donahoo ⇒ TBD) Education Outreach  (Jeff Donahoo ⇒ Tomas Cerny) Full-stack/Data Science  (Toni Logar) Web Development  (Fredrik Niemelä) Problem Archive  (Christian Lim) Online Training in Competitive Programming	12/2022 – 2, Two Sigma, and etc.
	ICPC Online Training in Competitive Programming (Sunday) Weekly Masterclass; Weekly Intern Project Sync-up; Weekday Problem Set Weekend Practice Contests	1/14/2023 —
	North America Leadership Attend monthly meeting	6/2023 —
	Operations 2024 ICPC North America Championship (NAC) 2023 ICPC North America Championship (NAC)	5/23/2024 — 5/28/2024 5/25/2023 — 5/30/2023
	Trainer  2024 ICPC North America Programming Camp (NAPC)  Online training  Onsite training	2/2024 - 3/2024 - 5/2024 $5/23/2024 - 5/28/2024$
	Judge ICPC North America Qualifier (NAQ) ICPC Greater New York (GNY) Regional ICPC Mid-Central North America (MCNA) Regional ICPC Live Guest @ Regional ICPC North Central North America (NCNA) Regional Consortium for Computing Sciences in Colleges (CCSC)	10/2022 — 2/26/2023; 10/29/2023 10/2022 — 2024 10/2023 —

2024 ICPC Greater New York Regional (GNYR) at Columbia University

2023 ICPC Greater New York Regional (GNYR) at Columbia University

10/2023 -

9/2023 -

10/1/2023

9/2/2023

TBD/2024

10/29/2023

High School Contest (HSC)

**Invited Workshop** 

Site Director

ICPC Southern California (SoCal) Regional

Greater New York Regional (GNYR)

North Central North America (NCNA)

Head Coach Columbia ICPC	2/2022 -	
400+ members (3 World Finalists and 5 North America Championship qualifiers) and gro		
Officially sponsored by Tesla and CertiK in academic year 2022-2023!	, 0	
B-Weekly ICPC GNYR Practice Contests	Spring 2023 —	
Bi-Weekly ICPC Practice Contests	Summer 2022 -	
Columbia University Local Contest	2022 —	
$3\mathrm{rd}$	4/24/2024	
$2\mathrm{nd}$	10/15/2023	
1st	9/25/2022	
Columbia-CU later		
invited to 2024 NAC	10/29/2023	
invited to 2024 North America Programming Camp (NAPC)	10/29/2023	
Columbia-fortcoders		
finished 26th in 2022 ICPC World Finals	4/18/2024	
finished 8th in 2022 NAC	5/30/2022	
invited to 2022 NAPC	3/6/2022	
won 2021 ICPC North America GNYR	3/6/2022	
ICPC NA GNYR		
15 Columbia teams	10/29/2023	
23 Columbia teams	2/26/2023	
13 Columbia teams	3/6/2022	

Research Mentoring Experience Summer 2023 (3 students) Harvard (2): Alessandro; John;

Columbia (1): Tobias;

Spring 2023 (4 students)

Harvard (2): Alessandro; John; Columbia (2): Gabriel; Tobias;

**Fall 2022** (5 students)

Columbia (3): Samanway; Tobias; Ziwei;

Harvard (2): Alessandro; John;

Summer 2022 (7 students)

Harvard (7): AnaMaria; Alessandro; Andrew; Iris; Jarell; Mayesha; Will;

Industry Mentoring Experience edX/2U (Demo Day Mentor)

3/29/2023; 9/27/2023

10/2022 - 2/2023

Two Sigma (2022 NewTS Senior Mentor)

Software Engineer Intern Co-Host (Google)

Summer 2018

Academic Mentoring Experience **Q2 2024** (16 Students+)

Columbia (14): Angela; Benjamin; David; Eric; Gabriel; Harrison; Innokentiy; Isabel; Ken; Matthew;

Michael; Prabhpreet; Ryan; Serdar; Cornell-Tech (2): Adrian; James;

**Q1 2024** (17 Students)

Columbia (14): Angela; Benjamin; David; Eric; Gabriel; Harrison; Innokentiy; Isabel; Ken; Matthew;

Michael; Prabhpreet; Ryan; Serdar;

Stanford (1): Conner;

Cornell-Tech (2): Adrian; James;

**Q4 2023** (40 Students)

Columbia (30): Akash; Angela; Arusarka; Brendan; Chidi; David; Ethan; Greg; Gregory; Harrison;

Innokentiy; Jacklyn; Jennifer; Jonathan; Maitar; Matthew; Nicholas; Patricia; Patrick; Rahul; Ryan;

Samanway; Serdar; Shubham; Shreyas; Sian; Suro; Vivek; Yin; Yizhan;

Stanford (3): Conner; Parth; Suhas;

CMU (3): Harris; Lin; Yinzhu;

Cornell-Tech (2): Adrian; James;

MIT (2): Nelson; Nina;

**Q3 2023** (15 Students)

Columbia (7): Akash; Angela; David; Samanway; Sian; Suro; Yin;

Stanford (3): Conner; Parth; Suhas;

MIT (2): Nelson; Nina;

CMU (2): Lin; Yinzhu;

Cornell-Tech (1): Adrian

### **Q2 2023** (24 Students)

Columbia (14): Akash; Angela; Christopher; David; Fernando; Hanming; Jaidev; Samanway; Shirley; Sian; Suro; Venkat; Yi; Yin;

Stanford (4): Conner; Dylan; Parth; Suhas;

MIT (2): Nelson; Nina; CMU (2): Lin; Yinzhu; Cornell-Tech (1): Adrian;

KAIST (1): Yeji;

### **Q1 2023** (32 Students)

Columbia (27): Akash; Angel; Angela; Brendan G; Chi; Christopher; Hanming; Jiaqing; Jinze; Lance; Mattias; Mauricio; Maxwell; Pavan; Rong; Roshun; Samanway; Sameer; Shihao; Shirley; Sian; Suro; Weichen; Xingyu; Yin; Yuanhan; Zhen;

Cornell-Tech (3): Adrian; Pamela; Yang;

USC (1): Qingquan; KAIST (1): Yeji;

### Fall 2022 (24 Students)

Columbia (19): Chiamaka; Christopher; Elijah; Ethan; Eumin; Gaurav; Gilead; Guoxin; Hanfang; Mauricio; Nilaksh; Rong; Shihao; Suro; Venkat; Wenqing; Xiaoyu; Yin; Ziwei;

Cornell-Tech (5): Adrian; JaeEun; Jiaqing; Pamela; Subin;

### Spring 2022 (13 Students)

Columbia (13): Anais; Andreas; Andrew; Benjamin; Danrui; Ian; Olivia; Sri; Tim; Xijiao; Yuqi; Zhen; Zhihao;

### Résumé Critiques

300+ résumés

#### 45-Minute+ Mock Interviews

200 + sessions

 Community
 4/2019 - 

 Emma Nieh
 10/2022 - 3/2023 

 Bolim Lee (University of London; CS BSc '25; TBD)
 3/2022 - 2/2023 

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

Community	
Service	

MATHCOUNTS Volunteer @ Manhattan and New York 2024 Columbia University Commencement Marshall 5/2023 Beyond the Farm: Stanford Alumni Day of Service 5/6/2023 Programming bootcamp, open to anyone in the Greater New York community. Two Sigma × ICPC NAC (8 Competitors) 2/2023 11/2022 - 2/2023Member (Two Sigma: ACE Working Group: Design Questions) Co-Instructor (Two Sigma: Competitive Programming) 10/2022 - 1/2023**Instructor** (Two Sigma: Competitive Programming) 2/2023 10/20/2022 **Presenter** (Two Sigma: Work in Progress) 8/2022 -Program Committee ACM SIG CS Education (CSE) Technical Symposium 2023: Panels; ACM ITiCSE 2023: Full Papers; Posters; Judge Columbia Data Science Society (CDSS) Hackathon Fall 2023 10/8/2023 Spring 2023 2/11/2023 ACM SIGCSE Technical Symposium 2023: Student Research Competition Discord Channel Owner 3/2022 -Programming Zealots: 1525 members and growing! Columbia Problem Solving Warriors: 491 members and growing! Columbia Quant Warriors: 431 members and growing! Columbia ICPC Training Warriors: 400 members and growing! ICPC GNYR: 306 members and growing! Cornell Tech Interview Prep Workshop: 247 members and growing! MIT IAP Problem Solving Strategies: 145 members and growing! Stanford Online Technical Interview Bootcamp: 92 members and growing! CMU Technical Interview Workshop: 40 members and growing! Stanford CS LINXS Summer Research Program Mentor Summer 2023 Stanford Alumni Mentoring (SAM) Mentor 1/2023 -Volunteered to be a SAM mentor: 43+ students so far! Stanford Outreach Volunteer Alumni Link (OVAL) Interviewer 1/2022 - 2/2024Volunteered to conduct alumni interviews in NY, NJ, and MA chapters. 2023: 46+ (3 admitted!) 2022: 26+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 - 2022

Volunteered to conduct 55+ interviews at Google.

#### Competitive Programming Group Founder (Google)

11/2017 - 1/2021

Created 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 - 2022

Google Code Jam is an annual programming contest to recruit software engineers at Google. Monitored to answer questions contestants asked during the live contest.

Invited Career Fair Representative

Cornell-Tech Career Fair

10/7/2023

Leadership Experience **Organizing Committee** 

ACM SIGCSE Technical Symposium 2024-2025 (Publicity and Social Media) 2/2023 —

Technical Committee (MIT Digital Learning Lab)

10/2022 - 6/2023

Co-lead w/ Kathryn Traxler (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 OrchestraAY 2010 & 2011Vice-President (Stanford) Mathematics OrganizationAY 2009Webmaster/Historian Director (Stanford) Korean Student AssociationAY 2009

Reviewer Experience NSF Grants: 2023

ACM ITiCSE: 2023; 2024; ACM CompEd: 2023 ACM SIGCSE: 2023; 2024;

IEEE Transactions on Network Science and Engineering (TNSE)

Research Experience Optimization & Network Game Theory (Asuman Ozdaglar, MIT) Fall 2013 - Fall 2016

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

Scholarships and 2023 ICPC North America – Excellence in Leadership Award

**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.

# Competitive Programming Training

### **Progress Chart**

5-Year Plan

CodeForces

**4874** problems solved (rank:  $41 \text{th} / 1167157 \approx \text{top } .003\%$ )

rated **2129** (rank: 2183th/ $153378 \approx \text{top } 1.42\%$ )

Kattis

**4541.9** points (rank: 45th [Overall] and 9th/33110  $\approx$  top .02% [USA])

acmicpc.net / solved.ac

**2130** problems solved (rank:  $270 \text{th} / 531292 \approx .05\%$ )

rated **2597** (rank:  $263 \text{th} / 154773 \approx .17\%$ )

### Selected Publications

- [1] CS (Columbia) Gabriel Ryan, Burcu Cetin, Yongwhan Lim, and Suman Jana. "Accurate Data Race Prediction in the Linux Kernel through Sparse Fourier Learning" Proceedings of the ACM on Programming Languages, Volume 8, Issue OOPSLA1. 2024.
- [2] OR (MIT) Yongwhan Lim, Asuman Ozdaglar, and Alexander Teytelboym. "Competitive rumor spread in social networks" ACM SIGMETRICS Performance Evaluation Review 44.3 (2017): 7-14
- [3] OR (MIT) Yongwhan Lim, Asuman Ozdaglar, and Alexander Teytelboym. "A simple model of cascades in networks" Mimeo. 2015.
- [4] CS (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.
- [5] CS (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.
- [6] CS (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.
- [7] Mathematics (Stanford) Yongwhan Lim. "Symmetry Groups of Platonic Solids" Mimeo. 2008.