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

Selected Teaching Experience

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)

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*

    Stanford Computer Forum (host: Trudy Gonzalez)   *10/19/2023 & 10/26/2023*

    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*

  Fall 2022   *10/6/2022 & 11/11/2022*

  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)

  Spring 2024   *5/3/2024 & 5/10/2024*

  Fall 2023   *10/14/2023 & 10/21/2023*

  Fall 2022   *10/14/2022 & 10/21/2022*

University of Illinois Urbana Champaign (host: Mattox Beckman)

  Spring 2024   *5/1/2024*

  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 – 11/2/2023*
	Stanford University	
	Problem Solving Discussion Group (Weekly)	*6/2023 – 10/2023*
	Spring 2023: Online Technical Interview Bootcamp at Stanford	*4/9/2023 – 6/4/2023*
	Winter 2023: Information Session	*3/9/2023*

Programming Training Camps	**University of Central Florida** (host: Ali Orooji and Arup Guha)	
	Spring 2024	*3/28/2024 – 3/31/2024*
	Spring 2023	*3/21/2023 – 3/25/2023*

Selected Invited Talks	**Columbia University** Science Honors Program	*2/10/2024*
	Plenary	
	Columbia University Korean Graduate Student Association (KGSA) Career Panel	*3/31/2023*
	Keynote	
	Columbia University Application Development Initiative (ADI)	*2/22/2023*
	Competitive Programming Primer	
	Columbia Research Symposium (host: Emerging Scholars Program)	*4/22/2022*
	Massachusetts Institute of Technology Open Learning	*3/8/2023*
	Massachusetts Institute of Technology Digital Learning Lab	*2/8/2023*
	Michigan Math and Science Scholars (host: Mark Conger)	*7/7/2022*

Selected ICPC Experience

Co-Lead

ICPC World Finals Competitive Learning Institute (CLI) Symposium *4/2024*
  Education Initiative

Curriculum Committee at ICPC North America *7/2022 −*

New Coach Document Committee at ICPC North America *10/2022 −*

Internship Manager *12/2022 −*

Interns secured full-time positions including Google, Amazon, Point72, Two Sigma, and etc.

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

ICPC Online Training in Competitive Programming *1/14/2023 −*
  (Sunday) Weekly Masterclass; Weekly Intern Project Sync-up;
  Weekday Problem Set
  Weekend Practice Contests

North America Leadership *6/2023 −*

Attend monthly meeting

Operations

2024 ICPC North America Championship (NAC) *5/23/2024 − 5/28/2024*

2023 ICPC North America Championship (NAC) *5/25/2023 − 5/30/2023*

Trainer

2024 ICPC North America Programming Camp (NAPC) *2/2024 −*
  Online training *3/2024 − 5/2024*
  Onsite training *5/23/2024 − 5/28/2024*

Judge

ICPC North America Qualifier (NAQ) *10/2022 −*

ICPC Greater New York (GNY) Regional *2/26/2023; 10/29/2023*

ICPC Mid-Central North America (MCNA) Regional *10/2022 −*
  ICPC Live Guest @ Regional *2024*

ICPC North Central North America (NCNA) Regional *10/2023 −*
  Consortium for Computing Sciences in Colleges (CCSC)
  High School Contest (HSC)

ICPC Southern California (SoCal) Regional *10/2023 −*

Invited Workshop *9/2023 −*

Greater New York Regional (GNYR) *10/1/2023*

North Central North America (NCNA) *9/2/2023*

Site Director

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

2023 ICPC Greater New York Regional (GNYR) at Columbia University *10/29/2023*

Head Coach Columbia ICPC   *2/2022 −*

400+ members (3 World Finalists and 5 North America Championship qualifiers) and growing.
Officially sponsored by Tesla and CertiK in academic year 2022-2023!

Bi-Weekly ICPC GNYR Practice Contests   *Spring 2023 −*
Bi-Weekly ICPC Practice Contests   *Summer 2022 −*
Columbia University Local Contest   *2022 −*
  3rd   *4/24/2024*
  2nd   *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*
	Two Sigma (2022 NewTS Senior Mentor)	*10/2022 − 2/2023*
	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*

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*
Member (Two Sigma: ACE Working Group: Design Questions)   *11/2022 − 2/2023*
Co-Instructor (Two Sigma: Competitive Programming)   *10/2022 − 1/2023*
Instructor (Two Sigma: Competitive Programming)   *2/2023*
Presenter (Two Sigma: Work in Progress)   *10/20/2022*

Program Committee   *8/2022 −*
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 − 2/2024*
Volunteered 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 − 11/2021*
Selected 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*

Selected 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*

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 *AY 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

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 2nd (Gold Award) out of 9.3K+ in 2007.

Competitive Programming Training

Progress Chart

5-Year Plan

CodeForces
  4874 problems solved (rank: 41th/1167157 ≈ top .003%)
  rated **2129** (rank: 2183th/153378 ≈ top 1.42%)

Kattis
  4541.9 points (rank: 45th [Overall] and 9th/33110 ≈ top .02% [USA])

acmicpc.net / solved.ac
  2130 problems solved (rank: 270th/531292 ≈ .05%)
  rated **2597** (rank: 263th/154773 ≈ .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.