Yongwhan Lim

Contact Information

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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	*9/2013 − 1/2016*

Ph.D. (Extended Leave of Absence) 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	*7/2022 −*
Senior Quantitative Software Engineer (Derivative Engineering)	

Google	*10/2016 − 6/2022*
Research Software Engineer (Machine Learning Research)	*3/2021 − 6/2022*
Research Software Engineer (Brain Research)	*5/2019 − 11/2021*
Tech Lead (Kick Start Practice Rounds)	*10/2020 − 11/2021*
Software Engineer (TensorFlow Runtime)	*9/2020 − 2/2021*
Software Engineer (Ads)	*10/2016 − 5/2019*

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 28 reviews https://www.ratemyprofessors.com.

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; 48 students + 74 observers)
    Competitive Programming (COMS 4995-8; 53 students + 49 observers)
  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 [link]
  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

Coaching Experience	**Judge**	
	International Collegiate Programming Contest (ICPC) Greater New York Regional	*2/26/2023*
	ICPC North America Qualifier	*10/2022 −*
	ICPC Mid-Central Regional	*10/2022 −*

Head Coach Columbia ICPC [link]   *2/2022 −*

110 members (3 world finalists, 59 eligibles, and 48 ineligibles) and growing.

Soon to be officially sponsored by multiple companies.

Weekly Sunday ICPC Practice Contests from 12pm ET to 5pm ET.	*Fall 2022 −*
Weekly 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 is ranked 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*

Invited Talks	**Special Workshops on Technical Interviews** [slide decks]	
	Stanford University	
	Stanford Alumni Association (host: Michelle Badger)	*2/22/2023? & 3/8/2023?*
	Stanford Computer Forum (host: Trudy Gonzalez)	*1/19/2023? & 1/26/2023?*
	Stanford Computer Forum (host: Trudy Gonzalez)	*10/5/2022 & 10/6/2022*
	Haas School of Business, University of California − Berkeley (host: Park Sinchaisri)	*11/21/2022*
	University of Southern California (host: Cristina Fong)	*11/18/2022 & 11/19/2022*
	Harvard University (host: Office of Career Services)	*10/14/2022*
	University of California − San Diego (host: Jingbo Shang)	*10/14/2022 & 10/21/2022*
	Carnegie Mellon University − Silicon Valley	
	CMU Career Services (host: Leigh Mason)	*10/6/2022 & 11/11/2022*
	CMU Career Services (host: Leigh Mason)	*9/7/2021 & 10/5/2021*
	CMU Career Services (host: Leigh Mason)	*2/25/2020*
	UNIST (host: Myeongjae Jeon)	*9/28/2022 & 9/29/2022*
	National University of Singapore (host: Steven Halim)	*9/21/2022 & 9/22/2022*
	Seoul National University (host: Taesup Moon)	*8/24/2022 & 8/25/2022*
	KAIST (host: Juho Kim)	*8/17/2022 & 8/18/2022*

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

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

Research Mentoring Experience	**Columbia University**	*Fall 2022 −*
	Samanway Sadhu (SEAS CS MS '22 [Fall]; co-advised with Professor Suman Jana)	
	Tobias Hanl (SEAS CS MS '23 [Fall]; co-advised with Professor ?)	
	Ziwei Han (SEAS CS MS '22 [Fall]; co-advised with Professor ?)	

Harvard University	*Summer 2022 −*
Alessandro Barbiellini Amidei (Math AB '25 [Spring])	
John Michael Boesen (Applied Math+CS AB '25 [Spring])	
Iris Lang (Statistics+CS AB '25 [Spring])	
Will Hahn (AB '25 [Spring])	
Jarell Cheong Tze Wen (Math AB '25 [Spring])	
AnaMaria Perez (Math AB '24 [Spring])	
Mayesha Soshi (Applied Math AB '24 [Spring])	
Andrew Van Camp (Applied Math AB '23 [Spring])	

Two Sigma (2022 NewTS Senior Mentor)   *10/2022 –*

Software Engineer Intern Co-Host (Google)   *Summer 2018*

Columbia University   *Spring 2022 –*
  Undergraduate Students
    Christopher Yoon (CC CS BA '24 [Spring]; Summer 2023 Internship at Virtu)
    Hanfang Luo (CC CS BA '24 [Spring]; Summer 2023 Internship at Amazon)
    Mauricio Gonzalez (CC CS BA '23 [Fall]; TBD)
    Eumin Hong (CC CS BA '23 [Spring]; TBD)
    Ethan Zachary Turok (SEAS CS BS '23 [Spring]; TBD)
    Gilead Turok (CC CS+Applied Math (double) BA '23 [Spring]; TBD)
    Anais Lawson (SEAS CS BS '23 [Spring]; TBD)
    Chiamaka Chukwuka (SEAS CS BS '23 [Spring]; TBD)
    Andrew Sirenko (SEAS CS BS '23 [Spring]; TBD)
    Venkat Ramamoorthi (GS CS BA '23 [Spring]; TBD)
    Benjamin Snyder (SEAS CS BS '22 [Spring]; Full-time at Google)
    Yuqi Zhang (SEAS CS BS '22 [Spring]; Full-time at TikTok)
    Olivia Zhang (SEAS CS BS '22 [Spring]; Full-time at Goldman Sachs)
    Andreas Cheng (GS CS BA '22 [Spring]; Full-time at IXL Learning)

  Graduate Students
    Yin Zhou (SEAS Applied Math PhD '25 [Spring]; TBD)
    Ian Dorian Macleod (SEAS CS BS '23 + MS '23 [Spring]; Full-time at Scale AI)
    Wenqing Zhong (SEAS CS BS '22 + MS '23 [Spring]; TBD)
    Suro Lee (SEAS CS MS '23 [Fall]; TBD)
    Jiaqing Chen (SEAS CS MS '22 [Fall]; TBD)
    Guoxin Yin (SEAS CS MS '22 [Fall]; TBD)
    Rong Bai (SEAS CS MS '22 [Fall]; TBD)
    Gaurav Sinha (SEAS CS MS '22 [Fall]; TBD)
    Ziwei Han (SEAS CS MS '22 [Fall]; TBD)
    Xiaoyu Liu (SEAS EE MS '22 [Fall]; TBD)
    Shihao Wang (SEAS CS MS '22 [Fall]; Full-time at Amazon)
    Xijiao Li (SEAS CS BS '21 + MS '22 [Spring]; Full-time at Google)
    Danrui Yu (SEAS CS MS '22 [Spring]; Full-time at Google)
    Sri Hari Thikkireddy (SEAS CS MS '22 [Spring]; Full-time at Google)
    Tim Kao (SEAS CS MS '22 [Spring]; Full-time at Google)
    Zhen Lei (SEAS CS MS '22 [Spring]; Full-time at Amazon)
    Zhihao Jiang (SEAS CS MS '22 [Spring]; Full-time at Amazon)

  Résumé Critiques
    120+ résumés

  45-Minute Mock Interviews
    30+ sessions

Cornell-Tech   *Fall 2022 –*
  Graduate Students
    Subin Yun (Information Systems MS '24 [Spring]; TBD)
    Pingyue (Pamela) Pan (Information Systems MS '24 [Spring]; TBD)
    Adrian-Petru Surani (CS MS '23 [Spring]; TBD)
    JaeEun Lee (CS MEng '23 [Spring]; TBD)

Community Service   *4/2019 –*
  Emma Nieh   *10/2022 –*
  Bolim Lee (University of London; CS BSc '25; TBD)   *3/2022 –*
  Soyeon Wang (San Jose State University CS BS '21; Full-time at Amazon)   *4/2019 – 12/2020*

Community Service	**Presenter** (Two Sigma: Work in Progress)	*10/20/2022*
	Co-Instructor (Two Sigma: Competitive Programming)	*10/2022 −*
	Program Committee (ACM SIGCSE Technical Symposium 2023)	*8/2022 −*
	Discord Channel Owner	*3/2022 −*

Problem Solving Warriors: 316 members and growing!
Hedge Funds Warriors: 224 members and growing!
ICPC Training Warriors: 186 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 20+ alumni interviews in NY, NJ, and MA chapters.

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.

Software Engineer Instructor (New Community Baptist Church)   *4/2019 − 12/2020*
Taught 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 − 1/2021*
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.

Leadership Experience	**Technical Committee** (MIT Digital Learning Lab)	*10/2022 −*
	Co-lead w/ Rachel Krohn (ICPC: New Coach Document Development)	*10/2022 −*
	Co-lead w/ Etienne Vouga (ICPC: Curriculum Development)	*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	*AY 2009*

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)	*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	**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.