## Yongwhan Lim

Teaching Interests Interview Preparation: Technical Interview; Mock Interview;

Computer Science Fundamentals: Algorithms; Data Structures, C++;

Advanced Topics in Computer Science: Machine Learning; Computer Vision;

Applied Math: Optimization; Network Game Theory;

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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

September 2013 - January 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

 $September\ 2007-\ January\ 2013$ 

M.S. Computer Science (AI Track)

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

Advisors: Fei-Fei Li and Persi Diaconis

Languages

Fluent with C++ w/ the Standard Template Library.

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

Fluent in English and Native in Korean.

Work Experience Software Engineer (Google) Core

September 2020 - Current

Software Engineer (Google) Research

May 2019 — September 2020

Built a testing framework on both software and hardware specialized in ultrafast inference.

Software Engineer (Google) Ads

October 2016 - May 2019

Built an internal log analyzer tool to maximize Google engineers' productivity.

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

Software Development Engineer Intern, Microsoft Windows Live

Summer 2012

Developed a novel machine learning algorithm to detect compromised users.

Research Assistant (Stanford) Computer Vision Lab

Fall 2009 - Fall 2011

Created a state-of-the-art image feature called object bank.

Created a smart album application using the object bank feature.

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

Fall 2011

Grader & Tutor (Stanford) Department of Mathematics

Fall 2008 - Fall 2013

Served as a tutor for introductory courses.

Served as a grader for multiple courses.

Coursera Specializations Deep Learning (Andrew Ng @DeepLearning.ai)

Machine Learning (Emily Fox @UW Seattle)

Machine Learning with TensorFlow on Google Cloud Platform (Google Cloud)

Advanced Machine Learning with TensorFlow on Google Cloud Platform (Google Cloud)

Community Services

**Lead Software Engineer** (Google Kick Start Practice Rounds) October 2020 – Current Selected problems; set up platforms; mentored engineering volunteers; appeared on videos.

Software Engineer Interviewer (Google)

2017 - Current

Volunteered to conduct 40+ interviews at Google.

Software Engineer Intern Co-Host (Google)

Summer 2018

Met weekly with the intern to give guidance on the project.

**Software Engineer Instructor** (New Community Baptist Church) April 2019 - Current

Taught C++, Algorithms, and CS 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)

November 2017 - Current

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 - Current

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

Scholarship and 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).

**LeetCode**  $-480^{th}$  out of 125.0K+ users as of September 2020.

 $CodeChef - 1008^{th}$  out of 263.5K+ users as of September 2020.

 $\mathbf{CodeForces} - 2607^{th}$  out of  $101.8\mathrm{K} + \text{active users as of September } 2020.$ 

 $AtCoder - 2671^{th}$  out of 61.5K+ active users as of September 2020.

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  $2^{nd}$  (Gold Award) out of 9.3K+ in 2007.

Leadership

East-Coast President (Kwanjeong Scholarship)

Academic Year 2013

Organized the annual meeting for the recipients of scholarship in the east coast of USA.

Social Chair/Webmaster (Stanford) Symphony Orchestra

Academic Year 2010 & 2011

Vice-President (Stanford) Mathematics Organization.

Academic Year 2009

Webmaster/Historian Director (Stanford) Korean Student Association. Academic Year 2009

## 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

## 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.