Jinsun Yoo

jinsun-yoo.github.io

linkedin.com/in/jinsun-yoo

jinsun@gatech.edu

(470) 812-6042

EDUCATION

Georgia Institute of Technology — Atlanta, GA

Ph.D Student, School of Computer Science — *Expected Graduation: May 2026*

- **Concentrations**: **Edge Computing** (Distributed Systems & Hardware Accelerators)
- **Advisors**: Umakishore Ramachandran, Tushar Krishna

Seoul National University — Seoul, Korea

Bachelor of Business Administration — *Mar 2014 – Feb 2021*

Bachelor of Science in Computer Science and Engineering

- **GPA**: 3.99 / 4.3 (Summa Cum Laude)

WORK EXPERIENCE

MOLOCO Inc. — Seoul, Korea

Software Engineer — *Jan 2021 – Jul 2021*

Software Engineer Intern — *Jan 2020 – Aug 2020*

- Maintained and expanded a **2.5 million QPS** handling system on **GCP** in the AdTech industry
- Saved **$150K/month** by designing, coordinating, and deploying a company wide monitoring system reform
- Reduced approx **66% memory** of an entity and improved **scalability and code quality** by redesigning the entity
- Identified causes of internal congestion by measuring the impact of heterogeneous requests on a single microservice
- On-call duty for global infrastructure: maintained system health by finding and solving issues at an early stage

RESEARCH EXPERIENCE

Georgia Institute of Technology — Atlanta, GA

Graduate Research Assistant — *Aug 2021 – Present*

- Exploring the design space for edge nodes in support of situation awareness applications
- Designing TPU multiplexing as a means to **maximize resource utilization** in constrained edge environments

Seoul National University — Seoul, Korea

Research Assistant — *Sep 2020 – Dec 2020*

- Evaluated how a distributed Redis cluster shows improved performance over a single node configuration
- Proposed improvements to redis-benchmark as a tool to measure the performance of cluster configurations

Seoul National University — Seoul, Korea

Research Assistant — *Jul 2019 – Oct 2019*

- Assessed the performance enhancement of Samsung SmartSSD, a Near Data Processing device which transfers data directly from SSD to on board FPGA
- Designed and verified a model to estimate the difference with Near Data Processing, leading to a publication

PROJECTS

Pillbox: Web application deployed on **MS Azure** that manages supplement medication only with a picture of the label
Weight Pruning on BERT4REC: Used weight magnitude method to prune weights of BERT4REC, showing 5x 10x compression rate with minimal accuracy loss

PUBLICATION

J.Yoo, Y.Kim, and J.Kim, "An Assessment Model and its Usage for SmartSSD", KSC, 2019.

SKILLS

Languages: **Go**, C/C++, Python, SQL(basic)
Technologies: **GCP, Linux, Docker**, Git/Github, MS Azure, CI/CD(Jenkins, Travis), Datadog