# Jinsol Park

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# RESEARCH INTEREST

Systems for processing large-scale, real-time workloads in distributed environments

## EDUCATION

#### Seoul National University (SNU)

Seoul, Korea

Candidate for Bachelor of Engineering

Mar 2018 - Feb 2023 (Expected)

Major: Intense Major in Computer Science and Engineering

(GPA 3.72/4.3) (Major 3.8/4.3)

## Research Experience

## Architecture and Code Optimization Lab

Seoul, Korea

Advisor: Prof. Jae W. Lee, Department of Computer Science and Engineering, SNU

Jun 2022 - Present

- $\circ~$  Optimized inter-device communication for MoE training
- Designed systems for federated learning of MoE
- o Designed systems for DL model privacy via permutation

## Software Platform Lab

Seoul, Korea

Advisor: Prof. Byung Gon Chun, Department of Computer Science and Engineering, SNU

Jan 2021 - Jun 2022

- $\circ\,$  Designed a specialized key value store for streaming workloads
- o Designed a prompt tuning method for in-context learning

## Thunder Research Group

Seoul, Korea

Advisor: Prof. Jae Jin Lee, Department of Computer Science and Engineering, SNU

Aug 2020 - Dec 2020

o Profiled runtime breakdowns of different DL frameworks using Nsight Compute

## Publications

- Lee, G.; Maeng, J.; Park, J.; Seo, J.; Cho, H.; Yang, Y.; Um, T.; Lee, J.; Lee, J. W.; Chun, B. G., "FlowKV: A Semantic-Aware Store for Large-Scale State Management of Stream Processing Engines", *Proceedings of the Eighteenth EuroSys Conference* (2023)
- Park, J.; Koo, Y.; Chun, B. G., "Analyzing Computational Efficiency of Diverse Sparse Attention Mechanisms", Korea Software Congress (2021)
- Park, J.; Choi, M.; Matteson, A.; Lee, C., "Optimizing ELECTRA-based model for Zero Anaphora Resolution", *Human and Language Technology* (2021)

## TEACHING EXPERIENCE

_	Undergraduate Teaching assistant (Computer Architecture)	Seoul, Korea
•	Advisor: Prof. Jin Soo Kim, Department of Computer Science and Engineering, SNU	Fall 2022
•	Undergraduate Teaching assistant (Discrete Mathematics) - Best TA Award	Seoul, Korea
	Advisor: Prof. Yong Soo Song, Department of Computer Science and Engineering, SNU	Fall 2021
•	Undergraduate Teaching assistant (Logic Design)	Seoul, Korea
	Advisor: Prof. Ji Hong Kim, Department of Computer Science and Engineering, SNU	Fall 2020

## WORK EXPERIENCE

## NCSOFT Corp.

Pangyo, Korea

Software Research Intern in Natural Language Understanding Team, NLP lab

Jul 2021 - Sep 2021

o Optimized an ELECTRA-based model for Korean Zero Anaphora Resolution

## Extra-Curricular Activities

•	Deepest SNU graduate-level academic deep learning association, weekly hostings covering numerous DL fields	Seoul, Korea Mar 2022 - Present
•	Problem Solved SNU graduate-level problem solving study group	Seoul, Korea Jan 2022 - Jun 2022
•	Bacchus SNU CS Department resource management group	Seoul, Korea Jul 2021 - Dec 2021

## TECHNICAL SKILLS

- Programming Languages: Python, C/C++, Java
- Frameworks: PyTorch, PyTorch-Lightning, Pandas, Matplotlib
- Tools and Skills: Git, Docker, LaTeX