Jinsol Park

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RESEARCH INTEREST

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

EDUCATION

Carnegie Mellon University (CMU) Pittsburgh, U.S.
MS in Computer Science Aug 2023 - Present

Seoul National University (SNU) Seoul, Korea
BS in Computer Science and Engineering, Graduated Cum Laude Mar 2018 - Feb 2023

RESEARCH EXPERIENCE

- **Architecture and Code Optimization Lab** Seoul, Korea
  Advisor: **Prof. Jae W. Lee**, *Department of Computer Science and Engineering, SNU* Jun 2022 - Present
  - Optimized inter-device communication for MoE training
  - Designed systems for federated learning of MoE
  - 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
  - Designed a specialized key value store for streaming workloads
  - 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
  - Profiled runtime breakdowns of different DL frameworks using Nsight Compute

PUBLICATIONS

- Ha, H.; Jung, S.; **Park, J.**; Seo, M.; Hwang, S.; Chun, B. G.,"Two Examples are Better than One: Context Regularization for Gradient-based Prompt Tuning", *EMNLP Findings* (2023)
- 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
  - Optimized an ELECTRA-based model for Korean Zero Anaphora Resolution

EXTRA-CURRICULAR ACTIVITIES

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

Technical Skills

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