[전문연구요원 신규 편입 희망]

Jiun **Jeong**

M.S. Candidate in Computer Science

D815, Engineering Hall 4, 50, Yonsei-ro, Seodaemun-gu, Seoul, 03722, Republic of Korea

(+82) 010-4399-2048 | jiun.jeong@yonsei.ac.kr | programmer-k | Jiun Jeong

I received a Master's degree in Computer Science at Yonsei University. My research focused on concurrent data structures for persistent memory. Specifically, I worked on the design and testing of the persistent, batch-based, lock-free queue for Intel Optane memory. My research involved developing scalable and efficient non-blocking data structures, ensuring persistence guarantees, devising safe memory reclamation schemes tailored for these data structures, and designing recovery mechanisms to maintain data integrity and consistency in the event of system failures.

Education

Yonsei University

Republic of Korea

M.S. in Computer Science — *Mar. 2022 - Feb. 2025*

- Advisor: Prof. Bernd Burgstaller
- Embedded Systems Languages and Compilers (ELC) Lab
- Thesis: Safe Memory Reclamation and Full-System Crash Recovery for Persistent Lock-Free Batch Queue on Non-Volatile Memory
- Presentation Slides
- GPA: 4.27/4.3

Yonsei University

Republic of Korea

B.S. in Computer Science — *Mar. 2017 - Feb. 2022*

- Overall GPA: 3.53/4.3, Major GPA: 3.92/4.3

Experience

Gaudio Lab, Inc.

Republic of Korea

AI SDK Software Engineer (Internship) — *Feb. 2025 - Apr. 2025*

- Wrote unit and regression tests to validate SDK APIs
- Built the C-based audio SDK into WebAssembly and integrated it with AudioWorklet for browser-based audio processing

ELC Lab at Yonsei University

Republic of Korea

Undergraduate Research Intern Supervised by Prof. Bernd Burgstaller — *Jan. 2020 - Feb. 2022*

- Profiling techniques for streaming frameworks in the cloud
- Heterogeneous memory architectures
- Testing and debugging support for Ethereum smart contracts at scale

Publications

International Journals

Comprehensive Design Space Exploration for Graph Neural Network Aggregation on GPUs
Hyunwoo Nam, Jay Hwan Lee, Shinhyung Yang, Yeonsoo Kim, Jiun Jeong, Jeonggeun Kim, Bernd Burgstaller
IEEE Computer Architecture Letters 24.1 (Jan. 2025) pp. 45–48. 2025
DOI: 10.1109/LCA.2025.3539371

Preprints

Cloudprofiler: TSC-Based Inter-Node Profiling and High-Throughput Data Ingestion for Cloud Streaming Workloads
Shinhyung Yang, Jiun Jeong, Bernhard Scholz, Bernd Burgstaller
arXiv preprint, arXiv:2205.09325, 2023
DOI: https://doi.org/10.48550/arXiv.2205.09325

Domestic Conferences

Scalable Off-The-Chain Testing of Ethereum Smart Contracts on a Cluster of Workstations
Jiun Jeong, Yeonsoo Kim, Seongho Jeong, Bernd Burgstaller
Proceedings of the Korea Computer Congress 2024 (KCC 2024), pp. 1624–1626, June 26-28, 2024, ICC Jeju, Jeju Island, Republic of Korea
URL: https://www.dbpia.co.kr/journal/articleDetail?nodeId=NODE11862288

Patents

Apparatus for Optimizing Code for Utilization of Process-In-Memory

Republic of Korea

Bernd Burgstaller, Hyunmo Sung, Seongho Jeong, Jay Hwan Lee, Jiun Jeong, and Shinhyung Yang

Nov. 2023

- Korean Patent Application Number: 10-2023-0169862
- DOI: https://doi.org/10.8080/1020230169862

Awards

Graduate Student Research Assistant Scholarship

Republic of Korea

Department of Computer Science, Yonsei University

Spring 2022 - Fall 2023

- Awarded based on a GPA of 4.13/4.3 in CSI undergraduate courses
- Full scholarship covering four semesters

Excellence Award

Republic of Korea

Software Capstone Design

Spring 2021

- Graduation team project for the Department of Computer Science at Yonsei University
- Title: *Statically Analyzing Access Vectors of Linux Kernel Vulnerabilities on Android Platforms*

Excellence Award

Republic of Korea

Software Capstone Design

Fall 2020

- Graduation team project for the Department of Computer Science at Yonsei University
- Title: *Automatic Scoring and Feedback For Precision Education Software*

Teaching

[CSI4104-01] Compiler Design

Republic of Korea

Teaching Assistant

Fall 2023

[CCO1100-{01, 02, 03}] Computer Programming

Republic of Korea

Teaching Assistant

Spring 2023

[CSI4104-01] Compiler Design

Republic of Korea

Teaching Assistant

Fall 2022

[CAC1100-01] Computer Programming

Republic of Korea

Teaching Assistant

Spring 2022

Language Proficiency

TOEIC Speaking: 160 / 200

Republic of Korea

Certificate Expiration Date: 2027/02/16

Feb. 2025

- Advanced Low (AL) on ACTFL Proficiency LEVEL

TOEIC: 955 / 990

Republic of Korea

Certificate Expiration Date: 2027/02/15

Feb. 2025

- Listening Comprehension: 480 / 495
- Reading Comprehension: 475 / 495

OPIc: Advanced Low (AL)

Republic of Korea

Certificate Expiration Date: 2026/09/04

Sep. 2024

- Highest score for OPIc