



Jiun Jeong

M.S. CANDIDATE IN COMPUTER SCIENCE

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I am currently pursuing a Master's degree in Computer Science at Yonsei University. My research focuses on concurrent data structures for persistent memory. Specifically, I am working on the design and testing of the persistent, batch-based, lock-free queue for Intel Optane memory. My research involves 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

M.S. IN COMPUTER SCIENCE

- Supervisor: Prof. Bernd Burgstaller
- Embedded Systems Languages and Compilers (ELC) Lab

Republic of Korea

Mar. 2022 - Present

Yonsei University

B.S. IN COMPUTER SCIENCE

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

Republic of Korea

Mar. 2017 - Feb. 2022

Experience

ELC Lab at Yonsei University

UNDERGRADUATE RESEARCH INTERN SUPERVISED BY PROF. BERND BURGSTALLER

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

Republic of Korea

Jan. 2020 - Feb. 2022

Publications

INTERNATIONAL JOURNALS

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>

Projects

Smart Near-far Memory Architecture for Data-intensive Workloads

SAMSUNG DS DIVISION THROUGH THE YONSEI-SAMSUNG SEMICONDUCTOR RESEARCH CENTER (YSSRC)

Republic of Korea

Sep. 2020 - Present

Application and Toolchain Support for Processing-in-memory (PIM)

INSTITUTE OF INFORMATION & COMMUNICATIONS TECHNOLOGY PLANNING & EVALUATION (IITP)

Republic of Korea

Apr. 2021 - Dec. 2023

An Exa-scale Big Data Analysis Platform for Programmer Productivity and Performance on Clouds of Heterogeneous Multicore

NATIONAL RESEARCH FOUNDATION OF KOREA (NRF)

Republic of Korea

Jan. 2020 - Oct. 2020

Patents

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

BERND BURGSTALLER, HYUNMO SUNG, SEONGHO JEONG, JAY HWAN LEE, JIUN JEONG, AND SHINHYUNG YANG

Republic of Korea

Nov. 2023

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

Awards

2022 - 2023 **Graduate Student Research Assistant Scholarship**, Department of Computer Science, Yonsei University

Republic of Korea

2021 **Excellence Award**, Software Capstone Design, Department of Computer Science, Yonsei University

Republic of Korea

2020 **Excellence Award**, Software Capstone Design, Department of Computer Science, Yonsei University

Republic of Korea

Teaching

[CSI4104-01] Compiler Design

TEACHING ASSISTANT

Republic of Korea

Fall 2023

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

TEACHING ASSISTANT

Republic of Korea

Spring 2023

[CSI4104-01] Compiler Design

TEACHING ASSISTANT

Republic of Korea

Fall 2022

[CAC1100-01] Computer Programming

TEACHING ASSISTANT

Republic of Korea

Spring 2022

Language Proficiency

OPIc: Advanced Low (AL)

CERTIFICATE EXPIRATION DATE: 2026/09/04

- Highest score for OPIc

Republic of Korea

Sep. 2024

New TEPS: 472 / 600

EXPIRED: NO LONGER VALID

- Listening Comprehension: 189 / 240
- Vocabulary: 40 / 60
- Grammar: 42 / 60
- Reading Comprehension: 201 / 240

Republic of Korea

Sep. 2021

TOEIC: 925 / 990

EXPIRED: NO LONGER VALID

- Listening Comprehension: 495 / 495
- Reading Comprehension: 430 / 495

Republic of Korea

May. 2019

TOEFL iBT: 104 / 120

EXPIRED: NO LONGER VALID

- Reading: 27 / 30
- Listening: 28 / 30
- Speaking: 22 / 30
- Writing: 27 / 30

Republic of Korea

Aug. 2015