Jincheol Jung

https://bik1111.github.io Google Scholar

INTERESTS	Cloud Computing, Model-driven Resource Management, Intelligent Systems, Federated Learning

EDUCATION

Kyung Hee University Mar 2022 – Feb 2025
Undergraduate Student Yongin, Korea

- Bachelor of Science in Software Convergence
- Total GPA of 3.07 / 4.3 (88.07 / 100)
- Computer Network:A- Data structures:B+ Database:B+ Algorithm:B+ Operating Systems: B

National Institute for Lifelong Education (NILE) Oct 2020 – Feb 2022
Credit Bank System Seoul, Korea

- Bachelor of Business Administration
- Total GPA of 2.97 / 4.5 (81.89 / 100)

Myongji College Mar 2015 – Jun 2015
Associate's Degree (Withdrawal) Seoul, Korea

- Department of Theater and Visual Arts
- GPA: 2.97/4.5

PUBLICATIONS

ACCEPTED

Jincheol Jung, Hongju Jeong, and Euinam Huh. "Federated Learning and RAG Integration: A Scalable Approach for Medical Large Language Models". In *IEEE international conference on artificial intelligence in information and communication (ICAIIC)*, 2025, To Appear   [pdf]

PUBLISHED

Jincheol Jung. "Performance Analysis of Metric-Based Scaling in Kubernetes Environments: A Comparative Study of CPU Utilization and Custom Metric Approaches". In *Annual Conference of the Korean Information Processing Society (ACK)*, 2024   [pdf] [video]

Jincheol Jung, Sungwon Lee. "Performance Comparison Analysis of gRPC and ZeroMQ for Efficient Library Selection in Chat Service Development". In *KIISE(Korean Institute of Information Scientists and Engineers) Korea Computer Congress (KCC)*, 2024   [pdf]

HONORS AND AWARDS

University Innovation Scholarship, Kyung Hee University, 2022   [pdf]
  Awarded for contributions as undergraduate research assistant
SW Ownership, Kyung Hee University, 2023   [pdf]
  Recognized for excellence in extracurricular software activities
Google Hardware Hackathon, Google Korea, 2024   [pdf]
  1st Place among 8 teams
Excellent Award in Artistic Software Competition, Kyung Hee University, 2023   [pdf]
  Collaborated with College of Art and Design students; 3rd Place among 20 teams
Special Award in SW-centered University Hackathon, National Center of Excellence in Software, 2023   [pdf]
  7th Place among 46 teams from 51 universities; received a special award
Excellent Award in University Student IT Project Alliance Club (UMC), UMC, 2022
  3rd Place among 32 teams

RESEARCH EXPERIENCE

System Software Laboratory, Korea University Dec 2023 – Sep 2024
Undergraduate Research Assistant (Adviser: Assistant Professor Gyeongsik Yang) Seoul, Korea

- Led project on custom metric-based autoscaling in Kubernetes environments
- Contributed to 6G network systems project
    Reproduced AI-based open-source projects in Kubernetes environment
- Delivered presentations on model-based resource allocation systems in cloud environments, edge computing, and split computing.
- Conducted study related to Docker and Kubernetes

Individual In-Depth Study, Kyung Hee University   Sep 2024 – Dec 2024
Research Project (Adviser: Professor Euinam Huh)   Yongin, Korea
- Conducted in-depth research under supervision of advisor faculty member for one semester
- Led project on fine-tuning of Large Language Models (LLM) and integration of Retrieval-Augmented Generation (RAG) system in federated learning environment
- Accepted at the International Conference on Artificial Intelligence in Information and Communication (ICAIIC) 2025

Big Data Laboratory, Kyung Hee University   Dec 2022 – Feb 2023
Undergraduate Research Assistant (Adviser: Professor Changho Jihn)   Yongin, Korea
- Extracted and preprocessed human posture and joint data using Azure Kinect DK to analyze patterns of normal and abnormal postures
- Designed and trained neural network model (MLPClassifier) to classify correct and incorrect movements based on motion data
- Facilitated communication between Egyptian postdoctoral researcher and Korean student

Data Analysis Capstone Design Project, Kyung Hee University   Sep 2024 – Dec 2024
Research Project (Adviser: Assistant Professor Jeman Park)   Yongin, Korea
- Developed a keyword-based book recommendation system using LLM
- Processed summaries, reviews, and metadata for 1,500 books; integrated additional data via APIs to enhance quality
- Conducted comparative analysis of embedding techniques and implemented cosine similarity algorithm to enhance recommendation quality
- Built a user-friendly web interface with Streamlit for improved usability

LEADERSHIP

AWS Cloud Clubs (ACC)   May 2023 – Aug 2023
Regular Member   Yongin, Korea
- Served as Co-Captain in club for students interested in Amazon Web Services (AWS) and cloud technology
- Delivered a presentation on cloud services and facilitated hands-on exercises while assisting members facing difficulties   [pdf]

AWSKRUG University Student Group (AUSG)   Aug 2023 – PRESENT
Regular Member   Seoul, Korea
- Delivered presentations to club members on key concepts and practical examples of cloud services
- Organized and participated in IT conference tailored for university students
- Participated in study groups for database (MySQL) and English learning.

EXTRACURRICULAR ACTIVITIES

Military Service   Aug 2016 – May 2018
Auxiliary Police   Seoul, Korea
- Led team of auxiliary police officers, overseeing assignments and equipment management

Open Source Contribution Academy (OSSCA)   Jul 2023 – Oct 2023
Mentee   Seoul, Korea
- Translated 'Model' section of LLM Prompt Engineering Guide into Korean to improve accessibility for Korean developers   [link][code]
- Prepared a glossary and established guidelines at the initial stage of the translation project to ensure consistency   [pdf]

National University Student IT Project Alliance Club (UMC)   Sep 2022 – Nov 2022
Regular Member   Seoul, Korea
- Developed back-end systems using Node.js
- Integrated Naver Book Search API and improved query performance by over 30x through Redis caching functionality
- Led back-end team, overseeing API development, database construction, and project scheduling

PROFESSIONAL TRAINING	**Software Development Bootcamp**	Jul 2022 – Jul 2022
	Trainee	Seoul, Korea

- Completed comprehensive Web Developer Training Program with modern web technologies
  Front-end: HTML5, CSS3, JavaScript, and CSS frameworks (Bootstrap, Semantic UI)
  Back-end: Node.js(Express), MongoDB
  Built full-stack web applications implementing learned technologies   [pdf]

	Kyung Hee Group Virtual Company IT/SW Internship Program	Jul 2023 – Aug 2023
	Mentee	Yongin, Korea

- Drafted IT service planning documents and designed web page structures
- Developed a web application using Python and Django   [pdf]

	IT Job Bootcamp (Comento)	Sep 2023 – Oct 2023
	Mentee	Seoul, Korea

- Hands-on experience with AWS cloud setup and operations
  Configured AWS Free Tier environment with VPC and Bastion host
  Deployed Kubernetes-based EKS and launched Nginx services
  Implemented EFK (Elasticsearch, Fluentd, Kibana) stack for log monitoring and integrated
  CloudWatch alerts with Slack   [pdf]

	Google Cloud Skills Boost	Jul 2023 – Aug 2023
	Learner	Seoul, Korea

- Completed Kubernetes-focused training on Google Cloud Platform, including Foundations, Workloads, and Production tracks   [link]

TECHNICAL SKILLS	**Programming Languages** Python, JavaScript, Java, C++, MySQL, MariaDB, HTML, CSS
	Frameworks and Tools Docker, Kubernetes, Node.js, PyTorch, Django, SpringBoot

LANGUAGE PROFICIENCY	Proficient in **English** and Native in **Korean**

- IBT TOEFL: 81 (Reading: 18, Listening: 22, Speaking: 19, Writing: 22)
- MyBest: 86 (Reading: 22, Listening: 22, Speaking: 20, Writing: 22)

REFERENCES	**Gyeongsik Yang**

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Department of Computer Science and Engineering at Korea University
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Sungwon Lee
Professor
Department of Software Convergence at Kyung Hee University
Email: drsungwon@khu.ac.kr — http://mobilelab.khu.ac.kr/wordpress/

Euinam Huh
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