

JUN-GI JANG

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1, Gwanak-ro, Gwanak-gu, Seoul
Republic of Korea 08826

EDUCATION **M.S/Ph.D Student** MAR. 2017 - PRESENT
Computer Science and Engineering
Seoul National University
Advisor: U Kang

Bachelor of Science MAR. 2010 - FEB. 2017
Mechanical and Aerospace Engineering,
Computer Science and Engineering (double major)
Seoul National University

RESEARCH **Tensor Analysis, Time Series Analysis**
INTERESTS

PUBLICATIONS **Conferences**

C5. **Jun-Gi Jang** and U Kang, “Fast and Memory-Efficient Tucker Decomposition for Answering Diverse Time Range Queries”, The 27th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD), 2021, Virtual Event (oral presentation, acceptance rate $238/1541 = 15.4\%$).
Best Paper Award, Best Research Paper.

C4. Yong-chan Park, **Jun-Gi Jang**, and U Kang, “Fast and Accurate Partial Fourier Transform for Time Series Data”, The 27th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD), 2021, Virtual Event (oral presentation, acceptance rate $238/1541 = 15.4\%$).

C3. Moonjeong Park*, **Jun-Gi Jang***, and Lee Sael, “VEST: Very Sparse Tucker Factorization of Large-Scale Tensors”, IEEE International Conference on Big Data and Smart Computing (BigComp), 2021, Online. (* equal contribution)
Best Paper Award, 1st Place.

C2. **Jun-Gi Jang** and U Kang, “D-Tucker: Fast and Memory-Efficient Tucker Decomposition for Dense Tensors”, 36th IEEE International Conference on Data Engineering (ICDE), 2020, Online (poster, acceptance rate $(129 + 55)/568 = 32\%$).

C1. **Jun-Gi Jang**, Donjin Choi, Jinhong Jung, and U Kang, “Zoom-SVD: Fast and Memory Efficient Method for Extracting Key Patterns in an Arbitrary Time Range”, ACM International Conference on Information and Knowledge Management (CIKM), 2018, Lingotto, Turin, Italy (oral presentation, acceptance rate $147/826 = 17.8\%$).

Journals

- J3. Dawon Ahn, **Jun-Gi Jang**, and U Kang, "Time-Aware Tensor Decomposition for Sparse Tensors", Machine Learning, Sep. 27, 2021.
- J2. Dongjin Choi, **Jun-Gi Jang**, and U Kang, "S3CMTF: Fast, accurate, and scalable method for incomplete coupled matrix-tensor factorization", PLOS ONE, June 28, 2019.
- J1. Sejoon Oh, Namyong Park, **Jun-Gi Jang**, Lee Sael, and U Kang, "High-Performance Tucker Factorization on Heterogeneous Platforms", IEEE Transactions on Parallel and Distributed Systems, Apr. 1, 2019.

PATENTS

Patents

- P6. **Jun-Gi Jang** and U Kang, Apparatus and Method for Tensor Analysis (filed on Jul. 2021).
- P5. Yongchan Park, **Jun-Gi Jang** and U Kang, Fast Partial Fourier Transform Method and Computing Apparatus for Performing the Same (filed on Apr. 2021).
- P4. Dawon Ahn, **Jun-Gi Jang** and U Kang, Method for Tensor Decomposition with Temporal Dependency and Apparatus Therefor (filed on Mar. 2021).
- P3. **Jun-Gi Jang** and U Kang, Method for Decomposing Tensor and Apparatus for Performing the Same (filed on Sep. 2020).
- P2. Dongjin Choi, **Jun-Gi Jang**, and U Kang, Data Analysis Method and Apparatus for Sparse Data (registered on Mar. 2020).
- P1. **Jun-Gi Jang**, Dongjin Choi, and U Kang, Apparatus and Method for Processing Data (registered on Jan. 2020).

AWARDS & HONORS

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| Yulchon AI Star Fellowship , Yulchon Foundation | SEP. 2021 |
| Best Paper Award, Best Research Paper , KDD | AUG. 2021 |
| Best Paper Award, 1st Place , BigComp | JAN. 2021 |
| Lecture/Research Scholarship , Seoul National University | MAR. 2019 - AUG. 2021 |
| Humantech Paper Award (Honorable Mention, lead-author) , Samsung | FEB. 2018 |

WORK EXPERIENCE

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|---------------------------------------|-----------------------|
| Research Intern , HYPERCONNECT | JUL. 2020 - AUG. 2020 |
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INVITED TALKS

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| Regular Seminar , Qatar Computing Research Institute (QCRI) | SEP. 2021 |
| Korea Computer Congress 2020 , KIISE | JUL. 2020 |
| NC AI DAY , NC Soft | JAN. 2019 |
| Korea Software Congress 2018 , KIISE | DEC. 2018 |
| Samsung AI Forum , Samsung | SEP. 2018 |

TEACHING EXPERIENCE

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|-------------------------------------------------------------------------------|-------------|
| In Seoul National University | |
| Lead T.A. , M2177.004900 Theory and Lab of IoT, AI, and Big Data @ SNU | SPRING 2020 |
| T.A. , M2177.004900 Theory and Lab of IoT, AI, and Big Data @ SNU | FALL 2019 |
| T.A. , M2177.004900 Theory and Lab of IoT, AI, and Big Data @ SNU | SPRING 2019 |
| T.A. , M1522.001400 Introduction to Data Mining @ SNU | SPRING 2018 |
| T.A. , M1522.000900 Data Structure @ SNU | FALL 2017 |

In Other Organization

T.A. , Hyundai AI Master @ Hyundai Motors	AUG. 2021, OCT. 2021
T.A. , LG AI Education @ LG Chem	JAN. 2021
T.A. , SK Univ @ SK Hynix	SEP. 2020 - NOV. 2020
T.A. , DS ² (1st-7th) @ Samsung Electronics	APR. 2018 - JUN. 2021

PROFESSIONAL SERVICES

PC Member , BigComp	2021 - 2022
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GRADUATE COURSEWORK

M2177.003000 Advanced Data Mining @ SNU	FALL 2019
4190.676 Artificial Neural Networks @ SNU	FALL 2019
3394.506 Advanced Numerical Linear Algebra @ SNU	SPRING 2019
M1522.002500 Quantum Computing and Information Fundamentals @ SNU	SPRING 2019
430.502 Industrial Applications of Electrical and Electronic Technologies @ SNU	FALL 2018
430.709A Convex Optimization @ SNU	FALL 2018
4190.771 Topics in Algorithms (ML algorithms in bioinformatics) @ SNU	FALL 2018
430.707A Pattern Recognition @ SNU	SPRING 2018
4190.771 Topics in Algorithms (Compression) @ SNU	SPRING 2018
M1522.001600 Topics in Big data Analytics @ SNU	FALL 2017
M1522.000500 Information Visualization and Visual Analytics @ SNU	FALL 2017
430.707A Advance Databases @ SNU	SPRING 2017
M1522.001600 Topics in Big data Analytics @ SNU	SPRING 2017