JUN-GI JANG

CONTACT

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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 INTERESTS

Tensor Analysis, Time Series Analysis

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 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

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. Donjing 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

Best Paper Award, Best Research Paper, KDD 2021

Best Paper Award, 1st Place, BigComp 2021

Lecture/Research Scholarship, Seoul National University MAR. 2019 - PRESENT

Humantech Paper Award (Honorable Mention, lead-author), Samsung FEB. 2018

WORK EXPERIENCE

Research Intern, HYPERCONNECT JUL. 2020 - AUG. 2020

TALKS

Invited Talks

1. Zoom-SVD: Fast and Memory Efficient Method for Extracting Key Patterns in an Arbitrary Time Range, NC Soft, Jan. 2019

TEACHING EXPERIENCE

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

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