SANGJUN SON

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RESEARCH INTERESTS

Machine Learning, Data Mining, Tensor Analysis

EDUCATION

Seoul National University, *Seoul, Republic of Korea* Mar. 2016 - Present
Candidate for B.S. in Computer Science and Engineering
Interdisciplinary Major in Entrepreneurship

Daegu Science High School, *Daegu, Republic of Korea* Mar. 2013 - Feb. 2016

PUBLICATIONS

Dawon Ahn, **Sangjun Son**, and U Kang,
"**Gtensor: Fast and Accurate Tensor Analysis System using GPUs**,"
29th ACM International Conference on Information and Knowledge Management (CIKM) 2020, Virtual Event, Ireland

Sangjun Son*, Yongchan Park*, Minyong Cho, and U Kang,
"**DAO-CP: Data-adaptive online CP decomposition**," *make publicly available*, (* Both authors contributed equally to this work)

RESEARCH EXPERIENCES

Data Mining Laboratory, *Seoul National University* Nov. 2019 - Feb. 2021
Research Internship (Advisor: Prof. U Kang)

- **Gtensor**, **BIGtensor**: Accelerated large-scale tensor analysis on heterogenous system
- **DAO-CP**: Enhanced accuracy for CP decomposition of time-evolving tensors by a data-adaptive algorithm

Real-Time Ubiquitous Systems Laboratory, *Seoul National University* Jul. 2017 - Feb. 2018
Research Internship (Advisor: Prof. Chang-Gun Lee)

- Implemented simulation to study effects of AED delivery using unmaned vehicle transport technology on defibrillation in out-of-hospital cardiac arrest

WORKING EXPERIENCES

Google Software Engineering Intern, *Google Korea LLC., Desktop Search Team* Jun. 2021 - Sep. 2021
Automatic I2F and Nesting config generation for hOSRP to diOSRP conversion
Designed an internal tool for efficient development in OSRP migration

TEACHING EXPERIENCES

International Students Integrated Peer Tutoring Program, *Undergraduate Student Tutor* Spring. 2021
Data Structures & Algorithm Fundamentals, SNU Gwanak Residence Halls

Digital Computer Concept and Practice, *Lab Class Lecturer* Fall. 2020
Introduction to Python and Its Application, Dept. of Computer Science and Engineering

Basic Computing: First Adventures in Computing, *Teaching Assistant* Fall. 2020
Python Basics, SNU Faculty of Liberal Education

Basic Calculus 1, *Undergraduate Student Tutor* Spring. 2020
TA Office of the Department of Mathematical Sciences

SOFTWARE

BIGtensor, *Contributor of BIGtensor-GPU and Hadoop*   Nov. 2019 - Feb. 2021
Tensor mining packages for large-scale tensor analysis

Drone Transfer Simulator   Jul. 2017 - Feb. 2018
Simulation of AED drone delivery to defibrillation for patients with out-of-hospital cardiac arrest

COURSE PROJECTS

Deep learning-based wrinkle detection, *Morpheus3D*   Fall. 2020
Built new models to segment wrinkle parts in 3D scanned face images by exploiting state-of-art methods

ABC, *Art with Block-Chain: media-art platform*   Spring. 2020
Designed a platform where any creator can upload their own media arts and increase profits
Implemented smart contract on ERC-721 token, which records its metadata and p5.js-based content on blockchain

BusyWrite, *Team writing solution to accelerate collaboration*   Fall. 2017
Implemented a concept of a unit of thought that users write on, called *Bubble*, and enabled users to write simultaneously and merge after resolving conflicts

SKILLS

Programming Languages	C++, Python, Java, MATLAB, Scala, Solidity, R (Welcome to any languages)
Frameworks	PyTorch, Tensorflow, React, AngularJS, Django
	OpenCL, OpenGL, Hadoop, MFC

HONORS and AWARDS

Merit-based Scholarship (full amount), *Seoul National University*   Fall. 2020 - Spring. 2021

SNU Development Fund Scholarship, *Seoul National University*   Spring. 2017 - Fall. 2017

Korea Olympiad in Informatics, *National Programming Contest for High School Students*   May. 2015
Silver medal (the 3rd place)

EXTRA-CURRICULAR ACTIVITIES

WD Partners, *Consulting Firm providing indoor ventilation solution*   Jun. 2021 - Now
Theoretically found conditions with the most optimal ventilation efficiency through
CFD (Computerized Fluid Dynamics) analysis for pollutants like (e.g., fine dust and droplets containing viruses)
Built a prototype device using Coanda effect for real-world validation

Problem Solving in SNU, *Study group for preparing problem-solving interview*   Jun. 2021 - Now
Opened weekly practices and workshops to share and learn skills and strategies with each other

Decipher, *Blockchain Research Group in Seoul National University*   Mar. 2020 - Aug. 2020
Attended weekly seminars about various blockchain topics as a member of StuDeFi
Designed a donation platform, AID-U for contributing student education expenses

Paik's Beer   Dec. 2019 - Mar. 2020
Served beer and snacks as a part-time job after school

Republic of Korea Army, *Obligatory Military Service*   Feb. 2018 - Oct. 2019
Discharged on full-term military service
Occupational specialty: administration, communication equipment operation, chaplaincy

KASTTC, *Table Tennis Club*   Dec. 2016 - Dec. 2017
Conducted lessons to improve the skills of members, managed participating competitions, and supervised weekly training as a club's trainer