SANGJUN SON

lucetre
1, Gwanak-ro, Gwanak-gu, Seoul, Republic of Korea, 08826
✉ lucetre@snu.ac.kr ✆ +82 10 3831 0094 lucetre.github.io

INTERESTS

I am interested in **Machine learning**, **Data mining**, **Tensor analysis**, **Blockchain**, **Web development** and **Site reliability engineering**.

WORKING EXPERIENCES

Site Reliability Engineering Intern, *Moloco, Engineering* Jul. 2022 - Oct. 2022
Docker image optimization: built a Datadog monitoring dashboard and measured performance of CI/CD pipeline. Reduced security vulnerabilities from image and improved developer experience by faster deployment speed.

Engineer Intern, *NFTBank, Backend Team* Dec. 2021 - Feb. 2022
Deployed a scholar resume web-application for scholarship application in Axie Infinity.
Developed an automated payout service for scholarship managers.

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.

EDUCATION

Seoul National University, *Seoul, Republic of Korea* Mar. 2016 - Aug. 2022
B.S. in Computer Science and Engineering
Interdisciplinary Major in Entrepreneurship

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

PUBLICATIONS

Sangjun Son*, Yongchan Park*, Minyong Cho, and U Kang,
"**DAO-CP: Data-adaptive online CP decomposition**," *PLOS ONE 2022*,
(* Both authors contributed equally to this work)

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

RESEARCH EXPERIENCES

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

- **Gtensor**, **BIGtensor**: Accelerated large-scale tensor analysis on heterogeneous 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
Undergraduate Research Internship (Advisor: Prof. Chang-Gun Lee)

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

TEACHING EXPERIENCES

Logic Design & Web Development, *31th Peer Tutoring Program in College of Engineering* Spring. 2022

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

Scholar Resume, *SPA for Axie Infinity Scholarship Application* Jan. 2022 - Feb. 2022
Resume page depicting scholars' game career, including ranks, MMR, and earned SLP history

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

PROJECTS

LinkedArt, *College of Art Exhibition Archive Platform* Spring. 2022
Created an artwork sales channel between buyers and artists and provided a networking community of college of art undergraduate/graduate students to build their careers.
Operated Next.js and NestJS for front-end and back-end frameworks with PostgreSQL DB as a full-stack engineer.
Built an automated deployment pipeline via Vercel and Heroku cloud application platforms.

Seoul Bike Transit, *Spatial Geography Information Research using qGIS* Spring. 2022
Analyzed validity and efficiency of public transportation system w/ Seoul public bicycle service *Ttareungyi*.
Defined standards of a good route in safety, time, distance, exercise, cost, and transit counts.
Visualized *Ttareungyi* routes compared to those only using public transport via a live demo.

MopReM: Moiré Pattern Removal for Mobile, *Texts/Diagrams on Single-colored Background* Fall. 2021
Established a efficient module for mobile cameras specialized in demoireing re-captured screen materials.

Deep Learning-based Wrinkle Detection, *Morpheus3D* Fall. 2020
Built new models to segment wrinkle parts in 3D scanned face images by exploiting state-of-the-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 that records artwork metadata and p5.js-based contents 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, R, Typescript (welcome to any languages)
Frameworks & Tools	PyTorch, React, Next.js, Django, NestJS, OpenCL, OpenGL, Hadoop, Google Functions, Apache Airflow
Languages	Korean (native), English

HONORS and AWARDS

ACM ICPC Regional Contest Seoul, *ACM ICPC Gogle Team*, 15th place — Nov. 2021

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, 3rd place

EXTRA-CURRICULAR ACTIVITIES

WD Partners, *Consulting Firm providing Indoor Ventilation Solution* — Jun. 2021 - Dec. 2021
Demonstrated optimal condition for high ventilation efficiency through CFD analysis for pollutants. (e.g., fine dust and droplets containing viruses).
Built a prototype device using Coanda effect for real-world validation.

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.

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