Sungmin Kim

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SUMMARY:

AI Computer Vision Research intern with SPAID.
Experience with Computer Graphics, Computer Vision, Game Development and Web Development.
Creative Student with High Quality Ideas.

EDUCATION:

Digital Media & Applied Artificial Intelligence, (Feb 2027)
Ajou University, Suwon, Republic of Korea
GPA: 3.61/4.5
Courses taken included:
Computer related Courses: Object Oriented Programming, Data Structure, Algorithm, Computer System, Computer Graphics, Digital Image Processing, Computer Vision, Practical Web Development, GPU Programming
Math: Probability and Statistics, Discrete Math, Calculus, Linear Algebra

EXPERIENCE:

Private Tutor, Mar 2021 – Dec 2022 & Aug 2024 – Present
Yonsei Naro Academy, Suwon & Hwaseong Campus
- Started with Korean and Math tutor but for the most of the time worked as a Science (Integrated Science, Life Science & Chemistry) tutor for high school students
- Provided detailed lectures and personalized problem sets to let students score higher at exams
- Informed parents about the overall plans for the class.
- Give information about various college majors based on the real experience from myself and my acquaintances

Military Service as a Linguist (Translator), Jan 2023 – Jun 2024
U.S. Army Garrison Humphreys, 501st MI Brigade, Pyeongtaek
- Worked as a translator in various situations from casual conversations to briefings
and meetings with US and ROK army generals.
- Participated in three Combined Training and received 1 COA from ROKA,
4 COA from US Army (COA: Certificate of Achievement or Appreciation)
- Worked as a Teaching Assistant in Korean Language class for US army soldiers

Teaching Assistant, Mar 2025 – Jun 2025
"Introduction to Bigdata and Analysis" by Professor Wonseon Song, Ajou University
- Helped students understand key concepts in analysis by answering questions
- Read and scored all submitted programming assignments

AI Research Intern, July 2025 – Aug 2025
SPAID, Seoul, Republic of Korea
- Constructed a robust custom dataset by curating road-view images to resolve class imbalance issues in public datasets, specifically targeting modern architectural styles for better generalization in urban environments.
- Optimized the YOLO-seg model based on Python/PyTorch, achieving improved inference performance by fine-tuning data augmentation parameter(e.g., Mosaic, Mixup) at the code level to mitigate overfitting.
- Established an automated pipeline that extracts inference results into JSON format, enabling seamless integration with 3D texture mapping processes and demonstrating end-to-end

service implementation capabilities.

AWARDS: **Smart Railroad Safety Idea Contest using 4th Industrial Revolution Technology, 2017**
President of Korea Railroad Research Institute Award (2nd Place):
"Railroad facility Monitoring System using Noise and Vibration data collected from Individuals' Smartphones"

COMPUTER SKILLS: **Python:** Solved approximately 400 algorithm questions in Baekjoon online Judge, familiar with various packages including Pytorch
R: Completed introductory courses and education from various institutions
C++: Studied the basic syntax of C++ for OpenGL and OpenCV
Unity: Completed a simple 2D game by following a tutorial
Web development: Used React & Supabase to build a webservice for science education

LANGUAGE SKILLS: **Korean (Native), English (Fluent – TOEFL 107)**

CERTIFICATES & PORTFOLIO: **Bigdata Analysis by KRDI (Date Acquired: August 5, 2022)**
MITx 6.00.1x: Introduction to Computer Science and Programming Using Python (Date Acquired: March 30, 2024)

HEMP: Health Evaluation Metric using Proposals: https://docs.google.com/file/d/1KrDTd9FQ6Rd39UB1G3/sharing
Cinematic Trailer for Books(1984): https://drive.google.com/file/d/1B9V3HGaMwKBg/VRm1mYZoR3Z/view?usp=sharing
Kimchi run: https://play.unity.com/ko/games/a0140f4a-1717-471f-8632-f04495c27eea/kimchi-run-by-mrkim
Internship at SPAID: https://www.notion.so/overalltimeline-of-work-2470c9676066809faa2a88a8a5a552a?source=copy_link
PLEARN: https://pwd-final.vercel.app/