Yeonwoo Choi

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SUMMARY

- Built on an AI-security interdisciplinary background, led end-to-end work across public safety and information security projects from problem framing and data design to model validation and result presentation.

- Delivered 3 international conference presentations, won 2 competitions, and led 3 team projects, demonstrating strong execution, collaborative leadership, and practical problem-solving skills.

SKILLS

- **Languages:** Python, TypeScript, SQL — **Agentic Dev:** Claude Code, Codex CLI, ...

- **AI/Data:** Computer Vision — Human Action Recognition, Multi Object Tracking

- **Web:** Next.js, Vue.js — **Collaboration:** Git, Docker

EDUCATION

- **Pocheon High School (Gyeonggi)** — South Korea
  Graduated, Natural Sciences Track (Physics & Chemistry) — *Mar. 2013 – Feb. 2016*
  - Participated in campus broadcasting for 3 years as a member of Pocheon Broadcasting Station (PBS).

- **Kongju National University (Cheonan)** — South Korea
  B.S. in Computer Science and Engineering — *Mar. 2016 – Feb. 2022*
  - Overall GPA: 3.51/4.5 (Major GPA: 3.60/4.5).

- **Dongguk University Graduate School (Seoul)** — South Korea
  M.S. in Computer Engineering, School of Computer and AI — *Mar. 2022 – Feb. 2024*
  - Major GPA: 4.19/4.5 — Advisor: Junho Jeong.
  - M.S. Thesis: A Study on Synthetic Data Generation for Fall Detection.

PUBLICATIONS AND PRESENTATIONS

- **Choi, Y.**, Kim, B., & Jeong, J. (2023). A study on synthetic data generation for fall detection. *20th World Congress of the International Fuzzy Systems Association (IFSA).*

- Kim, B., Kim, S., **Choi, Y.**, & Jeong, J. (2023). A study on improving human skeleton-based fall detection for monocular camera. *10th International Conference on Advanced Engineering and ICT-Convergence (ICAEIC).*

- **Choi, Y.**, Kim, S., Kim, B., & Jeong, J. (2023). Design of crowdsourcing method for minimizing blind spot of CCTV based on blockchain. *15th International Conference on Future Information & Communication Engineering (ICFICE).*

ACTIVITIES

- **KNU Student Ambassador Group (Dubitnarae)** — *Member — Mar. 2016 – Feb. 2022*
  - Managed protocol support for entrance/graduation ceremonies and operated campus tours for applicants.
  - Attended ASA-K regular meetings and conducted external networking with university ambassador groups.

- **KNU InfoSec Club (NIMDA Security)** — *President — Apr. 2017 – Dec. 2021*
  - Co-founded and led club operations, planning internal study sessions and external seminars.

- **KNU Admissions Counseling Group (Noonnopi)** — *Member — Apr. 2020 – Feb. 2022*
  - Provided online/offline admissions counseling for high school students and managed the admissions Q&A board.
  - Operated counseling booths at the COEX College Admissions Information Fair (early/regular admission).

- **Secure S/W Lecture for Public Institutions (NSR)** — *Asst. Instructor — Jun. 2023 / Oct. 2023*
  - Developed theory/practice training content for secure software development/production and supported instruction.

- Prepared hands-on training environments (PC/software) for public institutions and managed on-site operations.
- **AI Web Service Developer Bootcamp** — Proof   *Completed — Jul. 2024 – Jan. 2025*
  - Completed a CV/NLP-focused AI web development curriculum with hands-on Vue.js/Flask training.
  - Led both midterm and final team projects (team of 4).

Projects

- **Advanced Secure Software Production Research**   *Researcher — Apr. 2022 – Oct. 2023*
  - Lead: Dongguk University Industry-Academia Foundation — Client: National Security Research Institute (NSR)
  - Designed theory/practice content for secure software development/production and delivered two special lectures for public institutions.
- **Smart Community Policing System (Googi)**   *Researcher — Jul. 2022 – Feb. 2024*
  - Lead: Dongguk University Industry-Academia Foundation — Client: National Information Society Agency (NIA)
  - Designed a blockchain-based crowdsourcing method to minimize CCTV blind spots and presented it at one international conference.
- **Multi-Sensor Fusion Intelligent CCTV for Detention Centers**   *Researcher — Jul. 2022 – Feb. 2024*
  - Lead: Dongguk University Industry-Academia Foundation — Client: Ministry of Science and ICT & National Police Agency
  - Generated synthetic data and improved a skeleton-based fall detection model, achieving 83% average accuracy (up to 86%), with one patent registration.
- **Ilsan Redevelopment Investment Analysis** — GitHub   *Team Lead — Nov. 2024 – Dec. 2024*
  - Lead: LikeLion — Client: Ministry of Employment and Labor · Employment Insurance Fund Co., Ltd.
  - Identified roughly 2x gaps versus Bundang in both real transaction prices and travel time to Gangnam/Seocho.
- **AI Web Service for Closed-Season Identification** — GitHub   *Team Lead — Dec. 2024 – Jan. 2025*
  - Lead: LikeLion — Client: Ministry of Employment and Labor · Employment Insurance Fund Co., Ltd.
  - Trained YOLOv11m on a 16-class, 1,509-image dataset (mAP50 0.995, mAP50-95 0.795).
- **Tzuyang Restaurant Map (KR & Global)** — GitHub   *Team Lead — Nov. 2025 – Present*
  - Lead: Internal Project — Client: Under Discussion
  - Led service planning and data curation, and designed the Next.js map UI and Node.js API.

Awards

- **K-Cyber Security Challenge (AI Malware Detection)** — Proof   *1st Place — Nov. 2020*
  - Optimized LightGBM performance on the static EMBER dataset (KISA Central Information Security Support Center).
- **Smart Policing Data Utilization Competition** — Proof   *Grand Prize — Dec. 2021*
  - Proposed a Hyperledger Fabric-based crowdsourcing service to reduce CCTV blind spots (Korean Association of Smart Policing).
- **Smart Policing Data Utilization Competition** — Proof   *Excellence Award — Dec. 2021*
  - Developed a de-identification system based on adversarial attack techniques (Korean Association of Smart Policing).
- **AI Web Service Developer Bootcamp** — Proof   *Commendation — Jan. 2025*
  - Received a commendation for outstanding academic performance and exemplary attitude (LikeLion).

Links

- Kongju National University Transcript — Proof
- Dongguk University Transcript — Proof
- Dongguk University Project Participation Certificate — Proof