Wonjun Park

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EDUCATION

University of Texas at Arlington   **Arlington, Texas, U.S.A.**
Master of Science in Computer Science   Aug 2024 – Expected May 2026
  • **Cumulative GPA**: 4.0 / 4.0 (*Phi Kappa Phi Honor Society*, 2025)
  • **Scholarships**: Youngho Kim Scholarship (Jan 2025), Dean of Engineering Scholarship (Sep 2024)
  • **Highlight Courses**: Bioinformatics, Data Mining, Machine Learning, Neural Networks, General Purpose GPU Programming,
  Data Analysis and Modeling Techniques (Probability and Statistics), Design and Analysis of Algorithms

Konkuk University   **Seoul, South Korea**
Bachelor of Science in Computer Science and Engineering   Mar 2018 – Aug 2024
  • **Cumulative GPA**: 3.67 / 4.5
  • **Scholarships**: Merit-based Academic Scholarship (Mar 2022), SW Activities Scholarship (Dec/Jun 2019), Internalization
  Scholarship (Jul 2019)
  • **Highlight Courses**: Natural Language Processing, Computer Vision, Signal Processing, Statistical AI, Data Science, Database,
  Operating Systems, Computer Security, Computer Networks, Philosophy of Life and Death, Introduction to Psychology

Purdue University   **West Lafayette, Indiana, U.S.A.**
Visiting Scholar   Mar 2023 – Jun 2023
  • **Audit Course**: CNIT 34400 Network Engineering Fundamentals
  • Attended in a Robotics and Intelligent Systems Expo (RISE) conference

Universidad Internacional Menéndez Pelayo   **Santander, Cantabria, Spain**
Summer Short-term Program   Jul 2019

PUBLICATION   A: Acknowledgement, C: Conference

[C.2] Park, W., et al. Towards Distance-aware Synthetic Audio Mixtures for Universal Sound. *ICASSP 2026*.
[C.1] Park, W., et al. Deploying a Sustainable Deep Learning Pipeline for Poison Ivy Image Classification. In *2024 IEEE First
International Conference on Artificial Intelligence for Medicine, Health and Care (AIMHC)*. pp. 181-184. IEEE.
[A.1] Dang, T., et al. EmotionCanines: A Dataset for Analysis of Arousal and Valence in Dog Vocalization. In *2025 ACM Multimedia*.

PROJECT

Animal Language Processing and Understanding   **Principal Investigator: Dr. Kenny Q. Zhu**
Arlington Computational Linguistics Lab   Feb 2025 - Present
  • Wrote 1 paper for submissions, and assisted 1 USDA grant proposal
  • Curated a dataset for Dog Vocal Separation task in a *Barkopedia* challenge held at IJCAI 2025
  • Interviewed 12 candidates for a REU program about Animal Language Processing
  • Collected Coyotes vocal from Fort Worth Zoo and analyzed it with Sound Event Detection models

Auditory EEG Decoding Challenge   **Principal Investigator: Dr. Eun Yi Kim**
Hosted at 2024 IEEE International Conference on Acoustic, Speech and Signal Processing (ICASSP)   Sep 2023 – Dec 2023
  • Analyzed EEG-Audio pair data with EEGChannelNet and HuBERT encoders, training to find similar features between modals

Korean Software Square – Spring 2023   **Principal Investigator: Dr. Eric T. Matson**
Funded by the Korean government (IITP, Ministry of Science and ICT)   Mar 2023 – Jun 2023
  • Spearheaded an MLOps project among 15 undergraduates nationwide selected by a government program
  • Wrote a research paper as 1st author, publishing to an IEEE conference

EEmaGe: EEG-based Image Generation for Visual Reconstruction   GitHub
Capstone Project for Bachelor's Graduation   Sep 2023 – Jun 2024
  • Suggested a framework for RE2I utilizing Self-Supervised Learning with 2 autoencoders and its downstream task
  • Demonstrated that removing labels and shuffling dataset pairs rather improved encoder performance by 0.8%

Do Brain Organoids Have Cognition?
3rd Idea Hackathon in Brain and Cognitive Science Community   Jun 2024
  • Proposed an experiment idea to foster communication between multiple brain organoids via electrical signals, forming their own
  language as time goes on, inspired by *Sapiens, Yuval N. Harari*

- Evaluated cognition theories like Global Workspace Theory and Integrated Information Theory and debated with 6 distinct majors, leading a debate to the limitations of these theories to apply in the organoids

EMPLOYMENT

Teaching Assistant: CSE-3302/5307 Programming Languages   **University of Texas at Arlington (Arlington, Texas, U.S.A.)**
Programming Language Concepts, Teaching   Sep 2025 – Jan 2026
- Developing weekly assignments, leading 45-minute weekly tutorials, and grading pop quizzes

Undergraduate Research Intern   **Purdue University (West Lafayette, Indiana, U.S.A.)**
PyTorch, TensorFlow, Kubernetes, Docker, Kubeflow, Azure   Mar 2023 – Jun 2023
- Secured independent ML environment for 2 teams on VMWare type 1 hypervisor mounted 3 GPUs and AKS deployed Kubeflow
- Engineered CI/CD/CT DL pipelines with 1,028 own collected plant image removed background with Segment Anything Model

Sergeant   **Republic of Korea Army (Daejeon, South Korea)**
Excel, Leadership, Communication, Teamwork, Discipline   May 2020 – Nov 2021
- Optimized a 5% replacement cycle of 4,000+ military equipment items by devising an Excel-based inventory system in Division
- Led a squad of 6 soldiers working in a 24/7 operation room for over 6 months, ensuring the safety and security of the facility

Full-Stack Developer   **ViralPro (Seoul, South Korea)**
Beautiful Soup, Selenium, Cron, Shell Scripting, SQL, Git, Business Modeling   Dec 2018 – Feb 2020
- Launched MVP with web crawler and cron, attaining ₩100M ($70K) vouchers from the government startup fund

Teaching Assistant: 1-1 C Programming, 1-2 Java Programming   **Konkuk University (Seoul, South Korea)**
C, Java, Mentorship, Tutoring   Mar 2019 – Jun 2019, Aug 2019 – Dec 2019
- Mentored 20 students on both online and 16-week lectures and provided interpersonal coding classes, all student passed

SKILL

Programming Languages – Python, C, C++, Java, JavaScript, Shell Scripting
Frameworks, Libraries, and Tools – Transformers, PyTorch, TensorFlow, JAX, CUDA, Kubernetes, Docker, Vagrant, Tableau, VIM
Knowledge – Natural Language Processing, Computer Vision, Signal Processing, Object-Oriented Programming, Agile and Waterfall, Test-Driven Development, Business Modeling, Lean Startup, Minimum Viable Product

HONOR & DISTINCTION

Unicorn Award (3rd) – Summer Hackathon, Google Developer Group Campus Korea   Jun 2022
Idea Award – LINC+ Idea Contest, Konkuk LINC+   Jun 2019

PRESENTATION

Barkopedia: A Canine Vocalization Understanding Challenge, IJCAI 2025, Montreal, Canada - HOMEPAGE
Key Metrics in Sound Source Separation, Arlington Computational Linguistic Laboratory Seminar – PDF, KEYNOTE
EEG Signals in Computer Science Perspective, Brain & Cognitive Science Community Seminar – PDF, KEYNOTE
EEG Emotion Recognition Via Ensemble Learning Representation, course presentation at Signal Processing – PDF, KEYNOTE

CERTIFICATE

Certificate of Competency – Getting Started with Accelerated Computing CUDA C/C++, NVIDIA   Jan 2025
Certificate of Completion – Brain and Cognitive Science Community   Sep 2024
Certificate of Merit – Purdue University   Jun 2023
Certificate of Open Badge – Konkuk University   Mar 2023
Certificate of Youth Entrepreneurship Academy Completion – Learning Factory   Sep 2021
Certificate of Attendance and Marks – Universidad Internacional Menéndez Pelayo   Jul 2019

EXTRACURRICULAR ACTIVITY

Brain and Cognitive Science Community | **Member**   Mar 2024 – Sep 2024
- Analyzed 6 subjects on each dataset for Alzheimer's and right-hand movement patterns as visualizing 3D fMRI data
- Presented how to analyze time series data like brain signals with deep learning, especially Transformers, to 6 different majors
- Volunteered at the 2024 KSCS Mind, Brain & Data conference
- Audited the Symposium on Neural and Cognitive Architecture and International Brain Initiative Daegu Conference

RIKU (Running in Konkuk University) and **Running Earth With Us** | **Crew Member**   Mar 2022 – Jun 2024
- Ran regular running, participating in marathon events like Gangdong Seonsa 5K in Seoul and The Challenge 5K at Purdue

Book Salon | **Lead**   Dec 2021 – Oct 2022

• Organized and led a book club with individuals from various fields, while reading books and sharing opinions

Picture Hands-up (Photo Club) | Club President   Mar 2018 – Dec 2019
    • Served as club president from January 2019, organizing group trips and regular outings to locations such as Ttukseom and Namsan to take pictures and hosting events like Secret Santa and Produce-Pickhands (a photo contest)

Student Council at Software in Konkuk University | Member of Planning & Accounting   Mar 2018 – Dec 2019
    • Privileged to dedicate organizing events and managing a budget, facilities, and receipts for other students
    • Assisted in operating the university festival by managing crowd control and serving refreshments

1318 Happy Zone Local Center For The Children | Volunteer   Sep 2018 – Nov 2018
    • Mentored a middle school student in Korean, Mathematics, and Korean History, developing tailored lesson plans, improving reading comprehension and problem-solving skills, and fostering engagement through interactive, interest-based learning as adapting teaching methods to maximize educational outcomes