

Curriculum Vitae/Resume

HAGYEONG LEE

POSTECH Electrical Engineering

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Education

- Sep 2022 – (Expected) Aug 2024 M.S. in Electrical Engineering | POSTECH
Advisor: Prof. Jaeho Lee
- Mar 2018 – Aug 2022 B.S. in Computer Science & Engineering | Ewha Womans University
- Mar 2015 – Feb 2018 Incheon Science High School

Research Experience











- Jan 2022 - Feb 2022 Undergraduate Research Intern | POSTECH Electrical Engineering(포항공과대학교)
(Advisor: Prof. Jaeho Lee)
- Sep 2021 - Dec 2021 Undergraduate Research Intern | KIST(한국과학기술원 차세대반도체연구소 스펀융합연구단)
(Advisor: Ph.D. SeokMin Hong)
- Sep 2020 - Feb 2021 Undergraduate Research Intern | Yonsei Severance Hospital
Center for Clinical Imaging Data Science(CCIDS) & Transitional AI Lab
(Advisor: Prof. HwiYoung Kim)
Development and validation of a visually explainable deep learning model for classification of C-shaped canals of the mandibular second molars in dental radiographs
- Jul 2020 - Aug 2020 Undergraduate Research Intern | Ewha Womans University
Computer Graphics Lab (Advisor: Prof. YoungJun Kim)
A Simulation-Based Convergence Content: AI Collaborated with Human-Robot Drawing Model

Publication

- "Neural Image Compression with Text-guided Encoding for both Pixel-level and Perceptual Fidelity"
(*ICML 2024*) **H.Lee***, M.Kim*, J.Kim, S.Kim, D.Oh, J.Lee
- "An Empirical Study on the Bias of Generative Image Compression"
(35th Workshop on Image Processing and Image Understanding, Feb.2023), **H.Lee** and J.Lee
- "Development and validation of a visually explainable deep learning model for classification of C-shaped canals of the mandibular second molars in periapical and panoramic dental radiographs"
(*Journal of Endodontics*, April.2022, *IF=4.171*) **H.Lee***, S.Yang*, B.Jang, K.Kim, J.Kim, H.kim, W.Park

Research & Project Experience

- Jan 2022 - Feb 2022 Winter Undergraduate Research Fellowship | POSTECH
Advisor : Prof. Jaeho Lee
Subject : Implicit Neural Representations for Image Compression
(Organize in Notion :)
- Sep 2021 - Dec 2021 KIST Undergraduate Research Program | KIST
Advisor: Phd. SeokMin Hong
Subject : Machine learning that can predict Imbalanced tabular data and obtain important factors as a result


- Sep 2020 - Feb 2021 Undergraduate Research Intern | Yonsei Severance Hospital
 Advisor: Prof. HwiYoung Kim
 Subject : Deep learning model for classification in dental radiographs (Abstract : )
- Jan 2021 - Dec 2021 Capstone Design Project (Graduation Project) | Ewha Womans University
 Advisor : Prof. Uran Oh | Role : AI/Data Research & Application Developer (Flutter)
 Subject: Korean food explanation and recommendation application using deep learning
 (메뉴판 촬영을 통한 AI 한식 검색 어플리케이션, Google playStore : , **GitHub**:
)
- Sep 2020 - Feb 2021 Challenge Semester Research Program | Ewha Womans University
 With Human-Computer Interaction Lab (Advisor : Prof. Uran Oh)
 Subject : Deep Learning based Signal Pattern Design of Abandoned Dog Sound 
- Jan 2020 - Jun 2020 Ewha Start-up Internship | ToonSquare Corp. 
 Role : AI Model Research(NLP) & Frontend Developer
 Text to Toon Emotion (using NLP to return emotions from text by classifying them into
 seven types labels, Demo:   )
- Jan 2019 - Dec 2019 Ewha Start-up club ORDA | Ewha Womans University
 Subject: AI-based custom coding education content curation platform “Code-ing”
 Role : AI Model Research & Frontend Developer 
- Sep 2019 - Nov 2019 Ewha Social Start-up & Venture program | Ewha Womans University
 Subject: Content & Communication Application offered to address Active Senior(Age 50+
 generation) depression and role deprivation 
- Jul 2019 245th NAEK Forum | National Academy of Engineering of Korea(한국공학한림원)
 Subject: Energy conversion policy, are we on track?
- Jul 2019 - Jul 2019 Global Start-up Technology Patent program | Yonsei University
 Subject: AI based Start-up Technology Patent

Scholarships & Awards & Forum

- Fall 2018 - Present Full Scholarship | SFFL(Scholarship Foundation for Future Leaders)
 For students who are expected to develop in the future as talent and have good grades and
 academic plans (1 student per University)
- Dec 2021 Ewha SW Graduation Project | (presentation 1st , Poster 3rd)
- Nov 2021 Ewha SW start-up Contest | Ewha SW Centered-Univ. | 3rd prize
- Nov 2021 2021 Korea Tourism Data Utilization Contest | Kakao Corp. , 한국관광공사 | 3rd prize
- Jan 2021 KU-LICS(Laboratory Start-up Competition) | Korea Research Foundation(한국연구재단),
 Korea University | 2nd Place
 Competition to verify the marketization of laboratory start-up items and develop them into
 commercialization
- Fall 2020 Challenge Semester Scholarship | Ewha Womans University
 For students who have demonstrated good and challenging research results.
- Fall 2019 SW Future Competency Development Scholarship | Ewha Womans University
 For students who are expected to develop in the future and good at computer engineering
 activities.
- Winter 2019 Tutoring Scholarship | Ewha Womans University
 Fall 2019 For responsible and sincere tutors who are highly rated by their tutees
 Spring 2019

Dec 2019 Woman in Engineering Undergraduate Leading Scholarship | Ewha Womans University
 Dec 2018 For students who are active and accomplished to develop in the future as female engineering talents.

Fall 2018 Ewha Alumni Scholarship | Ewha Womans University
 For students who are expected to develop in the future as Ewha Womans Univ. Student..


Nov 2019 Ewha Business Plan Festival | Ewha Womans University | 3rd Place
 Competition in which commercialization is verified under the theme of creative start-up items
 (Slides : )


Teaching Experience




Spring 2023 Learning About Electrical Engineering Using MATLAB | POSTECH
 Department of Electrical Engineering


Winter 2019 Peer Instructor(Tutor) | Ewha Womans University
 Fall 2019 Department of Computer Science & Engineering
 Spring 2019 Physics/C programming/Problem Solving and Software Programming (Python)

Communication Experience

May 2023 Women Techmakers Korea | WTM from Google Korea
 Career Talk about Fair Generative AI  (Talk Video)

Nov 2022 Google Developer Student Club Ewha | Google Korea
 Career Talk about AI Graduate and Research Trend 

Aug 2019 - Aug 2021 Google Developer Student Club Ewha | Google Korea
 Role: Group management staff / Lead
 Women Tech Makers Hackathon Organizer
 DevFest on Campus 2019 / 2020 Staff
 GDSC Solution Challenge Hackathon Organizer
 GDSC Pep Talk(Medical AI Session) with Prof. Jimin Lee (UNIST) 
 Planning and operating various development programs(DevFest, Hackathon, Pep talk) and events conducted by Google Korea.  

May 2019 5 월, 소프트웨어에 물들다: Library Software Lecture Project | Korea Code Club
 May 2018 Committee
 Advisor : Prof. Minseok Lee
 Role : Lecturer
 Using algorithms and pseudo-code to give lectures to lower elementary school students on what coding is, where and how it is used, and what computational thinking is. 

Mar 2018 - Dec 2019 Woman in Engineering Undergraduate Leading program | Ewha Womans University
 Role : Engineering Education Volunteer Team Leader
 Planning and conducting educational donation volunteer activities that apply various engineering concepts.
 Activity : Pycon 2018 Volunteer, Summer Future Job Camp with Seoul National University(Engineering part), JA Korea program, Engineering Festival, etc.

Skills

Programming

Python (Advanced) / C, Java (Intermediate) /MATLAB, JavaScript, Dart (Basic)