

## JU YEON, LEE

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### EDUCATION

#### **HANYANG UNIVERSITY ERICA Campus (HYU)**

**Ansan, Korea**

*Bachelor of Computer Science and Design Technology, College of Computing*

**Mar. 2017**

- President/mentee of KT 5G Leverage Employment & Career Mentoring, organized by Women in Science, Engineering, Technology Center (WISSET), 2020
- Active mentor/member of H.E.I - Mentor, International Language (Chinese) Institute Mentoring Program, HY Institute for International Education, 2019
- Active mentor/member of Favor in Your Eyes club, local government & HY Univ offices supporting youths and adolescents, 2019
- Active member of 0&1, a society for the study of algorithms, 2018
- Active member of INSIGHTING, a society for the study of socioeconomic analysis, 2017
- Active mentee/member of Mentoring Our Dreams program, HY Counseling Center, 2017

### RESEARCH INTERESTS

- Big data, mining, analysis
- Natural language processing, LDA
- Computer vision, pose estimation, object detection

### CLASS RELATED PROJECTS & EXPERIENCE

#### **D.REAM (Design. Real Experience for All Mankind) ACADEMY**

**Seoul, Korea**

*HCI Lab, Yonsei University, Prof. Jinwoo Kim*

**Jan. – Feb. 2021**

- Studied principles of experience design based on HCI/UX related theories
- Designed a service that can bring value to non-face-to-face medical services and produced prototypes
- Produced a digital healthcare app to prevent posttraumatic stress disorder caused by pet-loss using DSM-5 diagnostics, customized content according to grief cycle and mood tracking methods

#### **AI Technology Course (computer vision track)**

**Seoul, Korea**

*National IT Industry Promotion Agency*

**Jul. – Aug. 2020**

- Studied basic artificial intelligence
- Studied image processing with Opencv and CNN, GNN, RNN algorithms
- Produced Covid-19 infectious behavior detection using hand detection, area-calculation, Opencv

### PUBLICATIONS & RESEARCH EXPERIENCE

#### **Data Science Labs**

**Seoul, Korea**

*Industry Crowdsourcing Research Dept., Researcher*

**Sep. – Dec. 2020**

- Developed of seafood home meal replacement (HMR) reflecting customer needs
  - Built data crawling HMR product review data, preprocessing text data using KoNLPy
  - Analyzed customer reviews of HMR products through latent Dirichlet allocation (LDA)
- Topic modeling, emotional analysis
  - Extracted main ingredients and cooking methods for each HMR by NLP from shopping cart data
  - Performed market basket analysis (association analysis) using apriori algorithms from shopping data
- Predicted of Covid-19 hazardous areas using school population
  - Performed preprocessing and exploratory analysis of floating population data (2019-2020)
  - Analyzed map visualization changes in population movement before and after Covid-19 using floating population data
  - Predicted vulnerable areas to infection using school population data
- Developed professional counselor recommendation algorithms that reflect customer characteristics
  - Integrated and built psychological data from the Korea EAP Association

- Developed counselor recommendation algorithms suitable for clients using collaborative filtering
- Designed recommendations according to the weight of the client's information

## **Design Technology Research Center**

**Seoul, Korea**

*Research Dept., Undergraduate Researcher*

**Jan. – Feb. 2020**

- Hyundai Motors project (future cars, self-driving cars, UX, interior design, living lab)
  - Conducted living lab experiments as auxiliary experimenter using buck to derive an optimized vehicle layout for interior intervention considering vehicle architecture
  - Analyzed USE CASE and itemized quantification for setting ranges by combining optimal conditions for each system, such as sheets, displays and cockpits

## **CONFERENCES & WORKSHOPS**

- Low Code workshop from Devs Speak (APAC) **Jul. 2020**
  - Participated as Seoul speaker
  - Introduced the Low Code project using Microsoft's power platform
- Online Hands-on Workshop for Microsoft X WWCode **Jul. 2020**
  - Created face recognition attendance app with PowerApps
- Women's Engineering Research Workshop (WISSET) **Jul. 2020**
  - Participated as speaker
  - Introduced software major and career

## **SCHOLARSHIPS**

- National Scholarship **Mar. 2017 - Mar. 2021**
  - Korea Scholarship Foundation, total \$3,340
- Families with multiple children scholarship **Mar. 2017 - Mar. 2021**
  - Korea Scholarship Foundation, total \$9,000
- HY Mentoring Scholarship **Mar. - Dec. 2019**
  - Favor In Your Eyes club, Hanyang University, total \$2,150
  - Taught English and mathematics to low-income children for 1 year
- Practical Talent Scholarship **Dec. 2019**
  - College of Computing, Hanyang University, total \$200
  - For outstanding grades and activities
- PBL Global Student Scholarship **Jun. 2017**
  - College of Business and Economics, Hanyang University, total \$1,600
  - Participated in economic cooperation projects between China and South Korea
- Autonomous Scholarship **Jun. 2017**
  - College of Business and Economics, Hanyang University, total \$100
  - For outstanding grades and activities

## **HONORS & AWARDS**

- Honors for mentee for Employment & Career Mentoring **Dec. 2020**
  - Women in Science and Engineering, Technology (WISSET)
  - Awarded for excellent activities
- SW Academic Conference, Software Business Group, Hanyang University **Dec. 2020**
  - Excellence prize
  - Developed an online travel kit app for Covid-19 using AS, JS, HTML
- Industry Cluster-Problem Based Learning Competition, Hanyang University **Dec. 2019**
  - Excellence prize

- Surveyed 200 drivers and pedestrians and built traffic IoT services
- SW Startup IDEA Competition, Software Business Group, Hanyang University **Sep. 2019**
  - Excellence prize
  - Mobile door keys for increased security efficiency at shared accommodations
- Industry Cluster-Problem Based Learning Competition **Jun. 2018**
  - IC-PBL Center, Hanyang University
  - Excellence prize
  - Designed AI speakers for dementia patients using Python, JS, NLP

## **CERTIFICATION**

- Design.Real Experience for All Mankind Academy **Feb. 2021**
  - Korea HCI (Human Computer Interaction) Association
  - Untact Digital Healthcare: Petros Post Trauma Prevention Service
- Computer Vision Education **Aug. 2020**
  - National IT Industry Promotion Agency
  - Covid-19 behavior detection

## **VOLUNTEER ACTIVITIES**

- Global Power Platform Bootcamp from Microsoft **Feb. 2020**
  - Participated as Volunteer
  - Taught object detection
- H.E.I-Mentoring program **Jun. 2019 - Dec. 2001**
  - Participated as Korean mentor
  - Taught Korean to Chinese students and helped them adapt to Korea
- Mentoring program from Favor in Your Eyes club **Mar. - Dec. 2019**
  - Mentored English and math
  - Provided educational and emotional support to children from low-income families
- Experience Instructor from HY-3D start-up **Jun. 2018**
  - Helped elementary school students experience AR at the Ansan community service center in Gyeonggi-do
  - Used Microsoft HoloLens AR devices

## **ADDITIONAL, SKILLS & OTHERS**

- Fluent in Korean and English
- Fluent in Python, C/C++ languages
- Advanced level in data analysis (Python, Tensorflow, Pandas, Data Preprocessing, EDA etc.)
- Intermediate level in web development (HTML, CSS, Javascript, React etc.)
- Operate technology posting blog (+94 Postings) for 2 years; C++ and AI/ML/DL, development notes
- Played classical piano for 10 years