# **YEJIN JEON**

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#### **EDUCATION**

### **Ewha Womans University**

March 2017 - Current

Seoul, Korea

 $Bachelor\ of\ Science-Double\ Major$ 

Computer Science/Mechanical and Biomedical Engineering (GPA: 4.11/4.5)

- Scholarship: Received scholarship for academic excellence for 1 semester (Spring 2017)
- **Relevant Coursework**: Operating Systems, Software Engineering, Cloud Computing, Computer Algorithms, Database, System Software and Labs, Pattern Recognition and Machine Learning, Statistical Learning Theory, Medical Image Processing

#### **EXPERIENCE**

Tanker Fund Inc. March 2021 – June 2021

Software Engineer Intern

Seoul, Korea

- Worked to recognize texts sequentially in real-estate related documents using image processing and parsing
- Developed captcha solving API using deep learning algorithm, contributing to a 50% increase in success rate
- Collaborated with the development team to integrate codes using Docker and Github & Git
- Improved the performance of machine learning algorithm for real estate price prediction by analyzing data
- Proposed a business of human resource assignment system using reinforcement learning to IBK (Industrial Bank of Korea)

# Quantitative Imaging & Informatics Lab in Korea Univ.

**May 2020 – September 2020** 

Research Intern Seoul, Korea

- Conducted research on developing 3-D multitask deep neural networks for generating collateral imaging from MRI perfusion
- Implemented MRI processing knowledge using python to preprocess raw MRI images and enhance the performance of algorithm

### **Electronics and Telecommunications Research Institute (ETRI)**

July 2019 – August 2019 Daejeon, Korea

Research Intern

- Designed and 3D-printed an experimental phantom
- Participated in AI system research that detects smuggling and dangerous goods in X-ray scanner images
- Developed masking algorithm to segment composite swords in X-ray container images using ImageJ
- Trained and tested various object detection deep-learning algorithms using Tensorflow

#### Artificial Intelligence-driven Biomedical Imaging Lab in Ewha Univ.

March 2018 - July 2019

Research Intern

Seoul, Korea

- Trained and tested deep learning algorithms for classification and object detection
- Led project on automated lesion detection in wireless capsule endoscopy, and gave oral presentation at IFMIA 2019

#### **PROJECTS**

# Pill Recognition and Information Provision Android App.

March 2020 - December 2020

Developed deep learning algorithm which detects pills on images, and detects & recognizes texts on pills

#### AI Stroke Rehabilitation Exercise Assistant Smart-Mirror

September 2020 – December 2020

- Implemented the pose estimation model to be executed on the Raspberry pi and Intel neural stick
- Created a web service that allows users to simulate and visualizes outcomes of exercising using Django, Html, CSS, Javascript

# **CONFERENCE PAPERS**

- H.L. Le, **Y. Jeon**, H.G. Roh, H.J. Kim, and J.T. Kwak. "3-D multitask deep neural networks for collateral imaging from dynamic susceptibility contrast-enhanced magnetic resonance perfusion." Medical Imaging 2021: Computer-Aided Diagnosis, 2021.
- S.H. Son, **Y. Jeon**, S.H. Bae, and S.J. Hwang. "A pill recognition and information provision system using a identification mark recognition model of pill image taken with a smartphone." Korea Software Congress 2020 of Korean Institute of Information Scientists and Engineers (KIISE), 2020.
- Y. Jeon, E. Cho, S. Moon, S.H. Chae, and J.H. Choi. "Deep convolutional neural network-based automated lesion detection in wireless capsule endoscopy." International Forum on Medical Imaging in Asia, 2019.

# **AWARDS**

- Grand Prize, Undergraduate capstone design conference in department of mechanical and biomedical engineering (12/2020)
- Top Prize out of 30 teams, SW start-up competition in Ewha Womans University (11/2020)

#### **SKILLS**

- **Programming Languages**: C, Java, Html, CSS, Javascript, Proficient in Python
- Others: Django, Tensorflow, Pytorch, Git & Github, Docker, Linux