CHAE LIN KIM

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PERSONAL PROFILE

I'm a computer science researcher with a focus on deep learning in facial expression recognition with few-shot learning.

I have extensive experience in deep learning and AI research with institutions in both Korea and USA, I have presented my research in various conferences.

I am a hardworking and ambitious individual, I am a self-starter and I am highly motivated with a great passion in the field of machine learning.

EDUCATION

Sookmyung Women's University   Seoul, Korea
Master of Engineering in IT Engineering   *Sep. 2021 – Aug. 2023 (expected)*
- Advisor: Professor Byung-Gyu Kim

Sookmyung Women's University   Seoul, Korea
Bachelor of Engineering in IT Engineering(Magna Cum Laude)   *Mar. 2016 – Aug. 2021*

RESEARCH EXPERIENCE

The University of Akron   Ohio, US
Exchange Research Intern   *July. 2022 – Aug. 2022*
- Applied deep learning algorithms to electrocardiogram classification

Sookmyung Women's University   Seoul, Republic of Korea
Graduate Researcher   *Sep. 2021 – Present*
- Conducted surveys for facial expression recognition and meta-learning with a focus on few-shot learning
- Applied few-shot learning on FER task to solve the overfitting problem of facial expression datasets
- Developed a deep learning-based vision inspection system for a bamboo toothbrush
- Proposed a deep learning-based fault detection algorithm by separating the detection and classification module for manufacturing automation
- Developed matching technology based on context information analysis for expanding the market of online publications
- Applied facial alignment algorithm using GAN on Lip Reading task to solve problem of difficulties on lip reading with side lips.
- Developed multi-modal model with vision and audio for Speech Recognition on Foreign Language Education Services
- Currently in process of conducting more research on generalization with raw and few datasets

Sookmyung Women's University   Seoul, Republic of Korea
Research Intern   *Mar. 2021 – Aug. 2021*
- Researched identifying valuable features of context information to inference similar types of publications
- Developed fusion algorithm of object detection and depth information for detecting dangerous situations in real-time
- Conducted various surveys for recent classification and detection of state-of-the-art models and implemented architectures

CONFERENCE PAPERS

International Conference
1. Recent Trend for Monocular Depth Estimation Based on Deep Learning, Ye-Ji Kim*, **Chae-Lin Kim***, Han-Lim Lee* and Byung-Gyu Kim*, International Conference on Multimedia Information Technology and Applications (MITA)

Korean Conference
1. A Study of the Fault Detectifon Technique for the Bamboo Toothbrush Manufacturing Automation, **Chae Lin Kim(First)**, Young-Ju Choi, Byung-Gyu Kim*, Eun-Ha Park, Kyung-Tae Lee, KMMS Autumn Conference (KMMS)

2. Development of Real-time Dangerous Situation Detection Algorithm Based on Object Detection and Depth Information Fusion, **Chae Lin Kim(First)**, Jeong-Been Seo, Byung-Gyu Kim*, KMMS Spring Conference (KMMS)

Conference Presentations

Korea Multimedia Society (KMMS) Autumn Conference 2021	Nov. 26, 2021
Poster presentation	*Online, Republic of Korea*

- Title: A Study of the Fault Detection Technique for the Bamboo Toothbrush Manufacturing Automation

Korea Multimedia Society (KMMS) Spring Conference 2021	April. 30, 2021
Poster presentation	*Online, Republic of Korea*

- Title: Development of Real-time Dangerous Situation Detection Algorithm Based on Object Detection and Depth Information Fusion

Teaching Experience

Sookmyung Women's University | *Teaching Assistant*	Seoul, Republic of Korea
Image Processing and its Applicatons	March. 2022 – June. 2022

- Assisted and taught MFC window programming with C language using Visual Studio
- Answered questions in person and online, marked assignments, and proctored exams for 30+ students

Operating Systems Principles	Sep. 2022 – Dec. 2022

- Assisted and helped examination paper creation about Operating Systems
- Answered questions in online, marked assignments and tests, and proctored exams for 280+ students

Honors and Awards

Graduation with honors: magna cum laude, Sookmyung Women's University	2021
Best honors Award, Sookmyung Women's University	2021
High honors Award, Sookmyung Women's University	2017, 2020
1st Place Award, Java Hackerthon in Jeju CCEI	2019
2nd place Award, Appjam in SOPT	2020
Undergraduate Research Scholarship, Sookmyung Women's University	2021

Programming Experience

Java Programming Education in Jeju CCEI	Jeju Island, Korea
Member of program	*July. 2019 – Aug. 2019*

- Designed a location based game application to solve social problems in Jeju island

(SMWU-KSU Interdisciplinary) Hackathon with AWS Educate	Seoul, Korea
Member of program	*Feb. 2020*

- Proposed deep learning-based app service using text and vibration to alert dangerous situation for auditory disordered people

University student programming union club (SOPT)	Seoul, Korea
Server Engineer	*Sep. 2019 – Dec. 2019*

- Designed an application service of vintage shopping mall as a server engineer and managed database

Extracurricular Activities

Graduate Student Council	Seoul, Korea
Student President	*March. 2022 - March. 2023*

- Hosted meetings and conferences for professors and graduate students

Sookmyung Unesco-Unitwin ICT education program	Phnom Penh, Cambodia
Student Assistant, Volunteer	*Aug. 2020*

- Assisted Arduino and mobile application programming course and managed student's hackerthon project

Sookmyung University Major Mentor Program (SUMM)	Seoul, Korea
IT Engineering Mentor	*Sep. 2019 – Feb. 2021*

- Delivered an introduction of IT Engineering lecture once a month and mentored high school students hoping to major in IT Engineering

Technical Skills

Languages: Python (TensorFlow, Pytorch), C/C++, Java, HTML/CSS, JavaScript
Developer Tools: Git, Amazon Web Services, Google Cloud Platform, VS Code, Visual Studio, Eclipse
Database: MySQL