## Hongyiel Suh

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Related Link: <a href="https://github.com/Hongyiel">https://github.com/Hongyiel</a>

https://hongviel.github.io/

### PROFESSIONAL OBJECTIVE

Graduated in Bachelor of Science in computer science and a minor in Mathematics. Interested in the Artificial intelligence area and other computer science parts as well. Participated in various departmental activities, and as an executive, had a strong responsibility for the group, and experienced good communication with people. Experienced in Artificial intelligence projects and other relevant computer science projects. Looking for a position in artificial intelligence research or other relevant software work.

## **EDUCATIONAL QUALIFICATION**

Bachelor's Degree Major (CS&CSE) Computer Science and Minor in Mathematics,

Oregon State University, Corvallis, OR, 2018 - 2022

#### **SKILLS**

Technical Skills Skillful in Python and C++

Good in Java, SQL, Android and C

Understanding well in Tensorflow, Keras, Artificial intelligence

algorithms (CNN, RNN, DS-CNN)

Management Skills Powerful Teamwork skills

Good communication with the team and people.

With professional project management knowledge, very well managing

team and project.

#### **EDUCATIONAL EXPERIENCE**

#### Course work (CS 290)

Oregon State University, Corvallis, OR, US 2020

Final project (A): Web development for an application for providing food recipe

**Description**: Develop a website for searching the recipe and including a log-in system to save personal information and data.

**Achievement**: Class grade A, Team work, implementing of SQL back-end and front-end **Role**: Design general architect structures. Back-end (Server side, management log-in system and maintenance user data permanently using mySQL), Front-end, testing application user experiment point of view.

**Project Management Method**: Agile Approach

Contributor: Hongyiel Suh, HJ.S, KH.K

*Link*: https://github.com/osu-cs290-f19/final-project-group-13

#### Course work (CS 492)

Oregon State University, Corvallis, OR, US 2021

Final project (A): Mobile development: movie application

**Description**: Searching movie charts and giving movie information to users in the live system. Using API to insert movie trailers in mobile applications.

**Achievement**: Class grade A, experienced Android system back-end and front-end **Role**: Back-end (Built in server structures, using SQlite to save user personal collections and favorite movies. Using API extracting movie data) Front-end (Architecture Design)

Project Management Method: Waterfall Approach

Contributor: Hongviel Suh, HJ.S, KH.K

*Link*: https://github.com/osu-cs492-w21/final-project-team-11

#### Course work (CS 434)

Oregon State University, Corvallis, OR, US 2021

MACHINE LEARNING & DATA MINING

**Description:** Learning Machine learning and data mining with large scale data set **Achievement**: Implemented KNN algorithm and HOG fast image classification with Kaggle competitions to get high accuracy.

Final Competition rank: Top 10%

# **Self-Motivating Study (Deep Learning and AI)** Organized Study Group, Corvallis, OR, US 2021

Study topic to deeply understanding of Artificial intelligence – KWS (Keyword Spotting) *Purpose and Target*: Analysis and Implementing KWS with pure Python code.

**Description**: Implement KWS Neural Network System including MFCC, DS-CNN with pure python code. Training NN under reinforcement method using Google Speech Data Set, and testing the system accuracy.

*Achievement*: After experiment of DS-CNN, better than original CNN, reduced the time complexity (approximately 1/9)

**Role**: Lead the team management, built-in program algorithm as DS-CNN

**Project Management Method**: Agile Approach

Contributor: Hongyiel Suh, HJ.S, KH.K

Link: https://github.com/Hongviel/KWSproject\_python

Capstone Project: Oregon State University, Corvallis, OR, US 2021 ~ 2022.06.10

Artificial intelligence, Implementation of Machine Learning based 3D Reconstruction of in-door

**Description**: Scanning old floor plan digitally and analyzing data to understand machines in distinguishing location of door, window, wall, closed wall and others.

*Achievement*: Understand Machine Learning packages (Tensorflow, Keras, Pytorch and others)

*Role*: Scrum Leader (management team), planning project with manager, develop program algorithms with Tensorflow and Keras, make TFrecord and design architecture.

Project Management Method: Agile Approach

Project Advisor (Manager): Steven, Katie of Autodesk Co. Ltd

Contributor: Hongyiel Suh, Qi Xu, Matthew Peterkort, Tuong Minh Nguyen Huy

*Link*: https://github.com/yuanyuanmai/DeepNeuronFloorplan

#### Hackathon Team Project: DevPost from

Oregon State University 2022

Hackathon, using Data and extract Covid19 data from Python flask

**Description**: Letting people feel the alertness by providing current covid-19 related data. **Achievement**: Learned Python Flask, Fluency API data usage to extract Covid-19 Data.

*Role*: Front-end (Design Architectures) Back-end (API data extractions)

Project Management Method: Agile Approach

Contributor: YS Cho, Hongyiel Suh, HJ Lim, DW Kang

Link

https://devpost.com/software/data\_hack\_covid-19?ref\_content=my-projects-tab&ref\_feature=my\_projects

#### **EDUCATION ACTIVITIES & EXPERIENCE**

Korean Student Association, Treasurer

Corvallis, OR, US 2020

- Manage financial data for this association.

Kaggle Competition Experience, Top 10%

Corvallis, OR, US 2021 Spring

- Machine learning Kaggle Competition during the class

Korean Student Association, Lead Officer & Treasurer

- Introducing Korean cultures. And manage financial data for this association. Also, led the general events and officers of this association.

Corvallis, OR, US 2021

Artificial intelligence Club, **Officer Secretary** 

Corvallis, OR, US 2022/01 ~

2022/06

Artificial intelligence Club, **Member** 

Corvallis, OR, US 2021 ~

## **AWARDS & Scholarship**

International Student Continuation Scholarship

- Amount: \$ 7500

Oregon State University, 2021 ~

2022

#### ADDITIONAL WORK

Military Service, Capital Defense Command

- Capital Defense Command Electronic Maintenance Information System Engineer

Ferry Sewol Victims of the accident volunteering at the joint memorial altar in Gwanak-gu

INTO University partnership Volunteer

- New International Student Orientation (ISO) Summer 2019, Guide students who are new students on the OSU Corvallis

Seoul, Korea 2016 ~ 2018

Gwanak-gu Office Square, Gwanak-gu, Seoul, KR 05. 17. 2014

Corvallis, OR, US 2019

#### **Relevant Coursework**

Web development, Data structures, Computer Architecture & Assembly language, Operating system, Database, Usability engineering, C language (OS), Analysis of Algorithms, Software Engineering, Computer Networks, Artificial intelligence, Machine learning

Linear Algebra, Numerical Analysis, Differential Calculus, Integral Calculus, Infinite series and sequences, Vector Calculus, Series, Statistics.