



Ariunzaya Gantulga

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SUMMARY

I am currently a graduate student at the Changwon National University's Department of Computer Engineering. My research interests are biological data classification utilizing machine learning and deep learning.

Area of interest:

Machine learning and deep learning.

EDUCATION

National University of Mongolia (Ulaanbaatar, Mongolia)

Bachelor of Engineering (GPA: 3.1/4.0)

Sep 2015 - June 2019

Graduation date: June 2019

Changwon National University (Changwon, The Republic of Korea)

Master of Engineering (GPA: 3.8/4.5)

Mar 2021 – Present

Expected graduation: Feb 2023

TECHNICAL SKILLS

Programming languages: JavaScript (React), CSS, Python, MATLAB, SQL, Git

Operating systems: Linux, Windows, Mac

Data science/Machine Learning: NumPy, Pandas, Scikit Learn

WORK EXPERIENCE

Changwon National University | Changwon, The Republic of Korea, KR

Mar 2021 - Present

Research student

As a full-time research student, I studied biological data identification and classification analysis. In doing so, the seed coat patterns were studied using scanning electron microscopy (SEM) images in collaboration with the Departments of Biology & Microbiology and Computer Engineering, and I was identified and classified. The task was completed by collecting data from several publications and then preprocessing the images. In addition, I did two main tasks. These include seed coat pattern image categorization and new groups based on seed coat pattern images. First, I defined the seed coat pattern and classified it using the popular Deep Learning network. Second, fresh grouping was conducted using unsupervised machine learning on the preprocessed images.

DDISH LLC | Ulaanbaatar, Mongolia

Aug 2019 - Feb 2021

Front-End Developer

I worked as a front-end developer at DDISH LLC, a subsidiary of MCS Group, a large Mongolian group. During this time, our company upgraded its previously used Call Center system. The following are included: JavaScript (ReactJS), HTML, CSS, and Material UI

DDISH LLC | Ulaanbaatar, Mongolia

Jun 2019 - Aug 2021

Software Engineer

When I first started as a software developer at the company, the KPI of call center system operators was handled manually. Therefore, work was done to design a KPI automation module for the call center system. PHP Symfony Framework, advanced database was used as technologies. I was challenged by the unknown and new technologies while working at the organization.

Machine Intelligence Laboratory | Ulaanbaatar, Mongolia

June 2018 – July

Intern

2018

My internship taught me basic concepts of natural language processing (NLP) and found between word similarity and distance-based cosine similarity using Java.

LEADERSHIP EXPERIENCE

AIIESEC in Mongolia | Ulaanbaatar, Mongolia

Oct 2017 - Jan 2018

President of Winter National Conference

Worked as a conference president to improve the activity and knowledge of the members. Our team consists of members in marketing, finance, external relations, delegate experience, and logistics.

AIIESEC in Mongolia | Ulaanbaatar, Mongolia

Aug 2017

Vice President Logistic of Summer National Conference

Collected and provided the materials needed for training and delegates. Manage the conference logistics in terms of venue, transportation, materials. Allocate and track all the conference materials for its sufficiency.

AIIESEC in Mongolia | Ulaanbaatar, Mongolia

Aug 2017

Member of Incoming Global Volunteer

Learned how to interact with international people and connect with my team.

ACHIEVEMENTS

Poster session

Color-Blind Image Correction Poster Session at the 10th International Conference on the Frontiers of Information Technology, Application and Tools (FITAT), 2017.

Certification

Foundation of User Experience (UX) Design at Coursera - Google

Deep Learning - Deep Learning UB 2018

Publication

Ariunzaya Gantulga et al., "A multi-considered seed coat pattern classification of *Allium* L. using unsupervised machine learning", Plants 2022, 11(22), 3097, <https://doi.org/10.3390/plants11223097>, under MDPI.

Ariunzaya Gantulga, Jonathan CL Kavalan, and Sungwook Chung "Identification of Seed Coat Sculptures using Deep Learning" Journal of Asia-Pacific Biodiversity, 2022, <https://doi.org/10.1016/j.japb.2022.11.006>, under Elsevier.