Jangyoung Jeong

OBJECTIVE

We are learning new technology domains and conducting research to develop practical applications that combine them with Deep Learning, a core model of AI technology.

STRENGTH

Self-motivated
Flexibility
Solving complex problems
Results driven

MBTI

ENFP

ADDRESS

Hwaseong-si, Gyeonggi-do

WEBSITE

https://akillness.github.io

EXECUTIVE SUMMARY

I started programming when I started developing games using DirectX.

I gained experience developing content at the application level using a basic graphics pipeline, and have my first experience creating a 3D game with client-server communication.
At that time, I had the opportunity to conduct research combining emotional computing and user behavior analysis, and I was able to obtain valuable experimental opportunities and results by developing a non-invasive user behavior analysis tool to emotionally classify game player types.
After that, I got a job at a mobile game company and had the opportunity to explore ways to apply AI technology to games, and I was able to obtain a model that learned the game play agent that was in service as an agent that could play by itself through reinforcement learning-based neural network learning.
Soon, I learned about new AI technologies related to content creation in addition to the reinforcement learning method that could only be applied to agents.
There is an expectation that AI technology will play a big role in content automation, and I have already joined a new AI organization with a large scale and conducted research on game content development.

Until recently, I have been exploring and researching ways to reduce the development cost of graphic resources required for game content production.
Currently, I am interested in creating usable content using GPT, a generative AI model, and am researching how to train by PEFT and how to output application-level results through Prompt Engineering and RAG (Retrieval Argumented Generation) on-device.

SKILLS

PROJECT LEVEL

Python, PHP

APPLICATION LEVEL

C/C++, C# DierectX, Java Script, jQuery | MY/MS/NOSQL

FUNCTION LEVEL

Win Api, Objective-C, Java

EDUCATION

AUG 2014 - AUG 2016

Master of science in game | Hongik University

MAR 2007 - FEB 2014

Bachelor of science in game software | Hongik University

EXPERIENCE

PERSONAL PROJECT

Jul 2024 – Present

JUL 2024 – PRESENT

A lightweight, runtime-optimized LLM chatbot for detective games

- PEFT LORA learning based on polyglot 1.3B
- Structure design to reduce model loading and inference time
- Exploring ways to improve accuracy

NC SOFT

Mar 2018 – Jun 2024

(~ 6 years 3 months)

JUN 2022 – DEC 2023

Digital double facial 4D scan and 4D HMC mesh low-poly process construction

- Faceform (formerly R3DS) system pipeline for 4D Scan Mesh Low-poly updated to the latest version
- Establishment of Faceform system pipeline for 4D HMC (Head Mount Camera) Mesh Low-poly

MAR 2022 – JUN 2022

Programming a robotic arm for automatic camera calibration

- Camera Calibration Checkerboard RobotArm Shooting Purpose
- Dynamixel Openmanipulator-x Serial Communication Implementation with 5 Actuators (Python, C#)

OCT 2021 – MAR 2022

Digital Twin Face 4D Scan Mesh Low-poly Process Building and Post-processing

▪ Building a pipeline system for R3DS (Russian 3D Scan) 4D scan mesh low-poly processing solution
▪ Building a pipeline for 4D scan mesh low-poly large-scale processing system and outputting post-processing results
▪ Optimizing Python code for UV-based topology registration/reordering

MAR 2021 – OCT 2021

Development of CA (Cellular Automata)-based Match-3 Puzzle Game Level Generator Web Service

▪ Active User Testing of MATCH-3 Level Generator Purpose
▪ Provides the ability to download the results of trained GAN models using Python Flask as individual and *.zip files by tuning parameters in the web client.

OCT 2019 – MAR 2021

Development of a Match-3 puzzle game Level Generator based on CA (Cellular Automata)

▪ To utilize Match-3 Level Generator for planning using procedural content generation method
▪ Implementation of CA (Cellular Automata) function and development of Level Generator based on CA model
▪ Proposal of CA Generative Combination to improve performance with more diverse patterns
▪ Utilization of learning data of GAN (Generative Adversarial Networks) model

MAR 2018 – SEP 2019

Development of a Match-3 Puzzle Game Difficulty Estimation Agent Based on MCTS (Monte Carlo Tree Search)

▪ Development of an agent to evaluate the difficulty of a Match-3 puzzle game based on simulation
▪ Implementation of MCTS (Monte Carlo Tree Search) function and application to game agent logic
▪ Derivation of meaningful results from acceleration and level difficulty evaluation

COM2US

Oct 2016 – Feb 2018

(~ 1 years 6 months)

JUL 2017 – DEC 2017

Testing the application of in-game reinforcement learning agents in "Dungeon Delivery"

▪ Exploration and research on whether AI technology can be applied to developed games

▪ Design a Tensorflow-based reinforcement learning model and apply it to a game using socket communication

▪ Design Gridmap as a learning environment for the game environment and apply DQN (Deep Q-Network) to the action prediction model

▪ Configure a Client-Server Network and perform learning to perform environment information and actions between Unity3D and Python platforms

APR 2017 – JUL 2017

Development of Issue Tracking, a developer sharing site that provides know-how on development collaboration processes

▪ Development of in-house web service that provides functions such as Stack Overflow, a developer sharing site for providing development collaboration process.

▪ Development using Code Igniter(CI) framework of MVC (Model View Controller) Pattern, WYSIWYG editor Summer note, DB(Mysql), and ajax functions

JAN 2017 – APR 2017

Other in-house website management (front-backend/DB), 2 in-house hackathons, Unity3D game development

NOV 2016 – JAN 2018

Management and support of new/experienced recruiting site, R&D related to mobile development/optimization technology, maintenance of discontinued mobile game services

PATENT

AUG 2019 – DEC 2020

Method and device for determining game difficulty | (Patent number : 10-2195-4710000)

NOV 2017 – DEC 2017

Affective computing device and its operating method | (Patent number: 10-2017-0009076)

ACTIVITIES

APR 17. 2023

NC Research AVATAR *Presentation video*

APR 28. 2020

NCDP2020 "Development of MATCH-3 Puzzle Game Difficulty Generator" Announcement

JAN 2019 – DEC 2022

***NCFellowship* Operations Management**

DEC 2017

Patent technology transfer related to JTBC entertainment program *"Paper of Perfect"*

MAR 15. 2017

***Article* about the sentiment analysis platform EmotionTracer**

JAN 28. 2016

"Love Sensor" HCI APP MARKET Encouragement Award Winner

JAN 28. 2016

J. Y. Jung, Y. B. Kim, S. H. Lee, S. J. Kang, "Facial Expression Scale Recognition System for Game Play Analysis", HCI Korea, 2016.

DEC 10. 2015

Y. B. Kim, S. J. Kang, S. H. Lee, J. Y. Jung, H. R. Kam, J. Lee, Y. S. Kim, J. S. Lee and C. H. Kim, *"Efficiently Detecting Outlying Behavior in Video-Game Players"*, PeerJ, 2015 (SCI-E).

NOV 12. 2015 – NOV 15. 2015

Emotion Analysis Platform *EmotionTracer G-star Exhibition Interview*