HOJOUNG JANG

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EDUCATION

Purdue University, West Lafayette, IN *May 2021 (Expected)*
Bachelor of Science in Computer Engineering **GPA: 3.85/4.0**

SKILLS

Software Skills:

- C/C++, Python, MySQL/SQL (basic), Bash, MATLAB, HTML and CSS

PROJECTS

CAM2 Research Team, *Purdue University* *May 2019 – Current*

- Contributed with the Image Database Team to build effective **real-time video stream feature indexing storage system** using **Python**, **MySQL/SQL**, **Vitess**, **MinIO** and **Docker**
- Designed a fast and optimized video indexing system that could **respond in seconds** to user/client request for specific **featured images**
- Managed **Python** code with **OpenCV** that can download snapshots from IP cameras
- Developed a basic design to **scale** the system with multiple cameras using **multiprocessing** library in Python

Game Master AI

- Utilized **Reinforcement Learning** to design an algorithm that can interact with new environment and play with various games in **OpenAI-Gym**
- Acquainted with the design to handle both **discrete and continuous state** environment, **Q-learning** and **replay buffer**
- Experimented with a simple Q-learning algorithm to **Deep Q-learning** algorithm using **Tensorflow**

Magic Mirror

- Designed and built a mirror screen that displays useful information such as time, weather forecasts and Google news headlines

Portfolio Website

- Utilized **HTML, CSS** and **Javascript** to build personal portfolio website that can showcase my profile

Relevant Courses

Data Structures

- Acquainted with the use of data structures such as **stacks, queues, lists, trees, graphs** along with algorithms in **sorting, searching and hashing**
- Analyzed **time and space complexity** of algorithms
- Built programming projects on topics such as **Huffman encoding, data sorting** and **shortest path** by applying **data structures**

Advanced C Programming

- Acquired how to work in **Linux** environment, using **GDB**, and **Makefile** to manage and develop programs in **C**.
- Analyzed **recursive programs** using GDB and mapping call stack
- Implemented structures and dynamic data structures such as **linked list** and **binary tree**

Current Courses: **Python for Data Science**, **Object Oriented Programming in C++ and Java**

ACHIEVEMENTS

Dean's List & Semester Honors, Purdue University *Fall 2018 & Spring 2019*

- Awarded Dean's List & Semester Honors