Jungmin (Min) Kim

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ACADEMICS

Columbia University (2020~Present, C. P. Davis Scholar) | Expected Graduation: May 2024

- B.S. in Computer Science, GPA: 3.82

Branksome Hall Asia (2013-2020) | International Baccalaureate Diploma | Graduated Top of the Class

Notable Awards:

- Google Code Jam 2019 | Top 6.5%
- CEMC Fryer Contest 2017 | School Champion | Distinction, Individual Honor (Top 0.4%)

PASSION PROJECTS

Hunt & Harvest: VR Game built using Unity Engine, played with Oculus Quest 2

- Collaborated with 3 developers to build a VR game using Unity. Took the responsibility to generate a clear roadmap and distribute the workload based on each member's strength, availability and interest level. Resolved 5+ major merge conflicts by deciphering Unity files and locating the point of conflict. Lead weekly meetings by helping to resolve an item that is behind schedule. Followed Nielson's 10 Usability Heuristics to design and implement the tool selection feature and mini-map triggering function, which is based on the player's wrist angle.

Gesture-based Real-time BlackJack Interface

- Developed a visual interface using OpenCV where the user can use hand gesture to play a game of Black Jack. The system processes a real-time video feed through a camera, finds the contour of the hand by thresholding, and identifies not only the static gestures but also dynamic gestures that are used in the game of Black Jack. The system is able to identify "hit", "check", "split" and "double-down" with a recall of 0.84.

iNAP: Nucleic Acid Binding Classification from a Protein Sequence Using BiLSTM-CNN

- Developed the model iNAP using BiLSTM-CNN, which outperformed existing models with a high Area under the ROC Curve (AUC) score of 0.922. Model seeks to identify the binding property of a protein solely through its sequence, which is an ongoing area of research as proteins that bind to nucleic acid molecules serve important functions such as the control of transcription, translation, splicing, apoptosis and DNA repair.

Build & Play MiniGolf

- Developed an AR mobile app that enables users to build their own mini-golf terrain and a VR app that enables them to play it. Implemented floor detecting techniques so that users can stack building blocks on top of an existing floor. Followed Nielson's 10 Usability Heuristics to design the UI for selecting, moving and rotating unique building blocks and placing it in the scene. For the VR app, implemented grabbing function using both hands and the controllers.

SKILLS

- **Languages:** Python, C, C++, C#, Java, Swift, SQL, R, HTML&CSS, Javascript
- **Tools:** OpenCV, PyTorch, TensorFlow, Numpy, Pandas, Matplotlib, Scikit-image, Unreal Engine, Fusion360, Premiere Pro, Illustrator, Photoshop
- **Relevant Courseworks:** Machine Learning, First Principles of Computer Vision Natural Language Processing, Machine Learning for Functional Genomics, Artificial Intelligence, 3D User Interface & Augmented Reality, Visual Interfaces, Data Structures, Fundamentals of Computer Systems, Computer Science Theory, Discrete Math, Linear Algebra, Number Theory & Cryptography

WORK EXPERIENCE

Alignment Growth Management

- 2023. 06-07. Summer Analyst. Interviewed 15+ executives/industry experts and presented on AI's future impact on the gaming and TV/film industry. Translated complex investment structures to easy-to-understand flow charts to enable better communication between the firm and the client. Analyzed quarterly operational performance for portfolio companies, compared it with the competitor's performance and suggested possible improvements. Built financial models and performed comparable company analysis for investment opportunities.

VIP Research & Management

- 2020. 06-10. Summer Analyst/Researcher in the Global Fund. Wrote four full reports (10,000+ words) and two half reports on companies in the live events, software, streaming, and space industry. Analyzed the companies against the fund's investment thesis: inevitable trends. Researched each industries in depth and presented on the final report. Research influenced the fund's investment portfolio. Created a template for the reports that future intern followed.