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Howon Kim

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EDUCATION

University of California, Berkeley | Bachelor of Arts, Computer Science (Cum. GPA 3.58), Aug 2021
De Anza College | Studied Systems Programming, Computer Information System (Cum. GPA 3.9)

EXPERIENCE

ReviewMe **Chief Technology Officer** **Sep 2020 - Present**
Seoul, South Korea

- Analyze eye blink patterns to develop the algorithm to score the concentration-level from user's reading data.
- For collecting more data, publish Android application that uses machine learning kit to collect face data while users read books.
- Lead several company projects includes web, iOS, and Android application. Market release expects in January 2021.

Samsung Electronics **Software Engineer Intern** **Jun 2020 - Aug 2020**
Samsung Digital City, Suwon, South Korea

- Researched Korean natural language process model using KoNLPy and Gensim libraries. Lemmatized and tokenized the Android notification data, then categorized them into several topics using Latent Dirichlet Allocation.
- Analyzed legacy code of Samsung Android framework and improved the search speed of queries.
- Led weekly Intern sprint plannings and daily stand-ups to manage milestones and estimate tasks.

AltoyGames **Cofounder & Chief Technology Officer** **Jan 2020 - Jul 2020**
Seoul, South Korea

- Strengthen the company's foundation in terms of technical aspects. Introduced communication tools, version control system, Agile development method, and managed overall development schedule.
- Wrote the C# scripts to control the game components as well as built the path-finding algorithm on grid system. Educated the new software engineers using Unity engine in 2D and 3D includes physics, lighting, AR, and pixel-perfect.
- Company is funded by Korean Government about 1 Million Korean Won (About 84,000 USD).

University of California, Berkeley **Computer Science Tutor** **Jan 2019 - Apr 2019**
Berkeley, CA

- Tutor Berkeley's Computer Science and Data Science courses through Adaptive Instruction Methods, learn and teach how to illustrate big-idea into practice; tutor considering psycho-social factors that affect learning in all levels.

PROJECTS

- **Ham and Spam Detection**: Made spam detection using logistic regression model and K-fold cross validation to validate the sigmoid function.
- **Interactive 2D Game**: Designed own data structure to save different tiles, locations of stars and characters. Made own algorithm to generate a randomized game map each time a player played.
- **Collaborative Travel Schedule Application**: Developed iOS Application using Swift, Firebase, MapKit, and Core Location. Users can add or remove location pins for travel plan with the location data synced with Firebase.
- **Maps**: Wrote a library package using Java to emulate a stripped-down version of Google maps. Using Dijkstra's algorithm and A*, the package finds the shortest route to a point from two or more locations and prints out directions and distance.
- **Pacman AI**: Built pacman agents on Gridworld, then applied them to a simulated robot controller (Crawler) and Pacman using value iteration and Q-learning.

PROGRAMMING SKILLS

- **Languages**: Java, Python, C, C++, C#, Swift, SQL.
- **Technologies**: Git, Unity Engine, LaTeX, Xcode.