ANDY KANG

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EDUCATION

University of California—Berkeley **Aug 2014-Dec 2017**
B.A. in Cognitive Science

Cognitive Science: Linguistics | Perception | Evolution of the Human Brain | Social Psychology
AI/Data Science: Principles and Techniques of Data Science | Artificial Intelligence
Computer Science: Data Structures | Machine Structures | Discrete Mathematics and Probability

CORE SKILLS

Software Development: Python | Java | C#(.NET) | C++ | Unity | VR | WPF
Web: Vue.js | AWS | MySQL | HTML | CSS | Javascript | PHP
Other: Git | Perforce | Azure DevOps | Adobe XD | Chinese (Mandarin) | Korean | Game Engine

WORK

Microsoft (343 Industries) **July 2019-Present**
Tools Engineer *C# | C++ | WPF | Game Editor Development | Perforce | Azure DevOps*
Developed the narrative tool for cutscenes in Halo Infinite on Slipspace Engine

- Improved property window and game object updates from both Engine and Editor code.
- Implemented UI/UX through constant communication with the internal users (animators and designers).
- Added features and fixed bugs on timeline tool and curve editor during playback of narrative scenes.
- Added depth of field, bokeh, and camera shake settings to the curve editor property window.

Geopogo **June 2017-May 2019**
Lead Software Engineer *Unity | C# | WPF | VR | PHP | AWS | MySQL | Vue.js | Adobe XD*
Led the design, development, testing, and deployment of a 3D architectural design software

- Integrated an open-source asset import pipeline that allowed users to 30 different 3D file formats into the software.
- Created a save and load system through JSON text files to save the scene details.
- Designed and Built a WPF windows application launcher that allowed users to do seamless license validation, software installation and updates.
- Architected and built the frontend and backend of the website using AWS Elastic Beanstalk (EC2) to host, S3 to store data, payment and subscription management system, MySQL database on AWS RDS for user signup and login system from scratch in 2 months.
- Designed and implemented the UI/UX of the software.

PROJECTS

Starcraft 2 Bot **Feb 2019-May 2019**
Python | Python-sc2 | OpenCV | TensorFlow | Keras
Protoss bot created with the goal of defeating a diamond-level human player. Initially designed to run methods depending on parameters, and in progress to develop a version 2 with deep learning through OpenCV.

Virtual Reality at Berkeley **May 2017-May 2018**
DeCal Facilitator **(https://vr.berkeley.edu/decal)** *Unity | Oculus SDK*
Developed and taught a course on VR development on Unity and Oculus SDK

NBA Score Prediction Algorithm **Feb 2018-Mar 2018**
Jupyter | HTML | Pandas | Numpy | Python
Linear Regression Model using data gathered through web scraping to predict NBA game scores. Limited the data to the previous season and the current season to account for roster changes. Focused on factors such as the number of best 5 in the starting 5, and the injury status, aggressiveness and defensiveness to predict if the final score is going to add up to be over or under a certain number e.g. 200.

MaliaSpeech: Machine Learning Speech Translator for Cerebral Palsy/Speech Disorder **Apr 2017-June 2017**
TensorFlow | Keras | Python | Firebase
Website to translate fragmented speech of people with cerebral palsy. Recorded samples from a twelve-year old girl in order to train the model on her speech patterns. Worked with a team of six for two months as part of TOM: Berkeley Makeathon. Wrote code to parse audio and parameters for noise to reduce bias.