

# Xiangming Ka

📅 24/01/1998  
📍 China  
✉ kaxm0124@163.com  
☎ +86 13180882116

## + Education

**Software Engineering** 09/2016 – 06/2020  
University of Electronic Science and Technology of  
China (UESTC), Chengdu, China

- GPA: 3.7/4.0
- Major GPA: 3.72 /4.0
- Senior Year GPA: 3.81 /4.0
- Bachelor of Engineering to be granted in June 2020
- Pacemaker Scholarship (top15%)

**Exchange Program:** 04/2019 – 06/2019  
University of California, Santa Barbara (UCSB)

- GPA: 3.57/4.0
- Courses: Computer Graphics(A); Advanced Image Synthesis(B)

## + Work Experience

**Interactive Media Development Assistant** 07/2019 – 09/2019  
**full-time internship**  
EO-VISION Digital Technology Co., Beijing, China

- Engaged in developments of VR and interactive touch screen demonstration for digital exhibitions using Unity 3D VR, 3DS MAX modeling, and C#/C++ programming, etc..
- 40 hours per week

**Vice President** 12/2016 – present  
Unreal Game Studio of UESTC

- Joined in a horror game design named "The 3rd Building", which was released on Steam
- Designed a 3D craft game with Unreal game engine, in which I made many building models with MAYA and implemented game logic with unreal blue print system
- Participated in a 2D Pixel Style Dungeon Game design, in which I was responsible for game planning, design and unity C# programing implementation

## + Skills

### Language Skills

TOEFL 105(R:30, L:25, S:23, W:27)  
GRE 322(V:155, Q:167, AW: 3.5)  
GRE (latest) 324(V:156, Q:168, AW: 4.0)

### Computer Skills

C, C++, C# (3yrs)  
MATLAB, Python (2yrs)  
Unity, Unreal (2yrs)  
Maya, 3DS MAX (2yrs)

## + Academic Experience

**Course Project: A Path Tracer based on Mento-Carlo Method, UCSB** 06/2019

- Completed a basic path tracer with ray tracing effects such as shading, shadow, reflection, refraction, and global illumination, etc. with 3000 lines of code
- Added several shaders and accelerated the rendering with BVH (bounding volume hierarchy)
- Depth-of-field effect using thin lens simulation based on Monte-Carlo ray tracer
- In-scattering and out-scattering effects by importance sampling inside objects

**Course Project: A REYES-style, Micropolygon-based RenderMan-like C Interface, UCSB** 05/2019

- Implemented basic functions of all RenderMan API using C++, such as primitives drawing, setting up graphics state (image format and the parameters of the camera), Shading System, Textures, Transparency, etc.
- Implemented a set of rendering pipelines for the REYES rendering system, and a high-quality image can be output according to the RenderMan scene file
- Completed this project with a total 2000 lines of code

**Brain Cognition and Brain Disease Institute, Shenzhen Institute of Advanced Technology** 10/2018  
Monitor& Group Leader of Scientific Research Camp

- Learned knowledge in brain-computer interface and digital signal processing, such as visual cortex SSVEP, motion-aware cortex ERD, etc.
- Applied machine learning to analyze EEG signals, especially using SVM and CNN to classify EEG signals
- Completed the final project: A Flappy Bird Game Controlled by EEG
- 1. Collected the visual cortex SSVEP brainwaves from subjects with a Neuracle device
- 2. Extracted the specific brain wave bands using MATLAB
- 3. Made feature extraction and classification of signals using convolutional neural network(CNN) based on TensorFlow
- 4. Integrated the above functions and implemented the game logic with Python