

KAIYUAN(GENTEKI) ZHANG

+1(646) 923-0474 ◇ New York, NY

kz2442@columbia.edu ◇ genteki.org ◇ [GitHub](https://github.com)

EDUCATION

Columbia University, *New York, NY*

Sep 2022 - Dec 2023(exp.)

MS in Mechanical Eng, curr GPA 3.8

- *Relevant Coursework: Machine learning, Reinforced learning, 3D pipeline rendering, Genetic algorithm, Robot control & simulation*

Shanghai Jiao Tong University, *Shanghai, China*

Sep 2017 - Jun 2021

BEng in Computer Sci, Mechanical Eng., GPA 3.7

- *Relevant Coursework: Computer Vision, FPGA Design by Vivado, GUI*

SKILL

Programming

Comfortable with C++, Python, Matlab

Development Tools

CMake/Makefile, Git/Github, shell, Linux

Frameworks

CUDA C++, Pytorch, OpenCV, Qt/PyQt, OpenGL

Designing Skill

Comfortable with Fusion 360, Solidworks

PROJECTS

CUDA Neural Network

Jul 2023 - Jul 2023

Columbia University

New York, NY

- Implement a neural network using CUDA C++ to identify digits from CIFAR dataset, [Github](#)

pyvts

Jan 2023 - Now

Columbia University

New York, NY

- Developed an open-source python library interacting with VTube Studio API, [Github](#).
- Published on [PyPI](#) with [documentation](#)
- Used by at least four open-source AI-Vtuber projects

Evolving Robot

Sep 2022 - Dec 2022

Columbia University

New York, NY

- Developed a 3D physics simulator with OpenGL
- Used genetic algorithm to evolving the shape and behaviors of robot, and achieved a robot with a speed of 1.7 m/s.

Improvement of An Electric Intelligent Working Robot

Feb 2021 - Sep 2021

Shanghai Jiao Tong University, China Southern Power Grid

Shanghai, China

- Detect the position of power cable using binocular system and LiDar, with error under 5mm.
- Enhanced robot manipulating system.

INTERNSHIP

Machine Learning Engineer

Feb. 2022

Binjiang Institute of Zhejiang University

Hangzhou, China

- Developed Voice robot navigation via NLP with colleagues.
- Designed robot simulation based on open source project habitat

EXTRA-CURRICULAR ACTIVITIES

Head of Publicity Department, *SJTU Cube Association*

Oct 2017 - Dec 2019

- Organized 2018 SJTU WCA Winter and 2018 SJTU WCA Summer.