# Lingxiao Yu

Programer, Multi-Disciplinary Artist





#### **Education Experience**

- 2020–2022 MS, Game Design & Development, Rochester, NY. Major, Rochester Institute of Technology.
- 2012–2016 BS, Computer Science, Macau. Major, University of Macau.
- 2013–2016 BS, Philosophy, Macau. Minor, University of Macau.

### Personal Projects

- Keywords 3D Math, Physics, Graphics, AI, Interpreters, Compilers, Game Design, Game Engine, Unity, Unreal, Fullstack
  - 2015 Recursive Neural Network Chinese-English translation model.
  - 2017 AI hackerthon challenge in Beijing, facial expression classification using CNN, with Keras in Python. 3rd in 10 teams.
  - 2019 PICO-8 Fantasy Console 3D physics collision engine. 80s Retro computing with limited CPU and RAM.
  - 2020 Lox language tree walk interpreter and virtual machine in Rust and C#.
    - miniHexMap, Unity hexagon map editor and procedural generator.
    - miniStrategy, Unity strategy framework.
  - 2021 Lucien, handcrafted 3D game engine with scripting. Wren lang C virtual machine embedded in Rust, GUI support, render with WebGPU.
    - Solo exhibition of poetry and a visual writing system at Latitude Gallery, Brooklyn.
  - 2022 Chaizi, a Wordle variation in Chinese. Typescript.
    - River, a digital chapbook, interactive with eyes. Trained with hand curated data using Cuda + dlib + SVM, audio and visuals pace with eye movement and blinks. Run in Unity with a \$20 webcam.
    - Fight To The Top. A melee combat short tech demo. Focus on animation and physics. Made in Unity, customized editor tools.
    - Itch game portfolios, 10+ short game titles.

# Work Experience

- Keywords Natural Language Processing, Backend Engineer, Data Engineer, Cloud Computing
- 2013–2015 Research, Chinese-Portuguess Natural Language Process Lab, Macau.
  - Rework and try improving the model from Lisa lab "Neural Machine Translation by Jointly Learning to Align and Translate".
- Mar, 2017 Engineer Intern, Easemob, 200 persons.
  - Chatbot for customer service system. Intention classification and type suggestion. Regex-like domain specific language, N-Gram models and Hidden Markov Model in Java.
- Sep, 2017 Backend Engineer, GeseDNA, 10 persons.
  - Gene data storage, algorithms in-house implementation for bioinformatics team. Validate samples, impute missing data, with or rewrite academic tools and deploy to production. SDK for data analysis in Java and Python. RESTful API for website use.
- Sep, 2018 Backend Engineer, Wegene, 50 persons.
  - Gene data storage & computation pipeline and Jupyter Notebook SDK on Aliyun cloud computing. ETL pipeline using similar infrastructures with AWS, Azure.

# Languages

Python	Proficient	5+year
Rust	Fluent	2-year
C#	Fluent	2-year
Java	Fluent	2-year
Lua	-	1-year
Ruby	-	2-year
C++	-	1-year
TypeScript	-	1-year

#### Personal

Social LinkedIn.

Rock Climb Boulder in Central Park, finished the project Polish Traverse, V6. Spent six months.