Yichuan (Ging) Luo

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Education

Carnegie Mellon University, Pittsburgh, PA May 2024

Bachelor of Science in Electrical & Computer Engineering.
Bachelor of Science in Computer Science (Dual Degree).
GPA: 4.00/4.00, *Dean's List*

Experiences

System Software Intern, GPU-MODS team, NVIDIA Corporation Summer 2022

- Wrote and debugged pre-silicon tests and system layer tests for NVIDIA's new GPU chips.
- Implemented and tested new functionalities of GPU chips; Used on production line.
- Coordinated with senior engineers to help refactor 20+ years codebase.
- Proposed and enhanced a handy tool for register access; Acknowledged by the team.

Research Assistant, Demand Sensing for Supply Chain Strategy, CMU Spring 2022

- Write data preprocessing code and helped tune an ML model to better predict the demand for businesses based on the supply chain; worked with SAP SE Corporation.
- Maintained the codebase in a clean and modularized way; Maintained documentation.

Research Assistant, Design of Piptide using Generative Deep Learning, CMU Fall 2022

- Reorganized all codes for portability and readability; Explored VAE and GNN.
- *Design of peptide inhibitors targeting β-catenin using generative deep learning and molecular dynamics simulations, to_be _published*

Teaching Assistant, Intro to Electrical&Computer Engineering, CMU Fall 2021

- Held weekly meetings with 15 students; Held office hours twice a week.
- Guided students how to design & debug circuit on PCB boards; Debugged broken circuits.

Projects

StarrySky, Github, CMU Spring 2021

- A 2D parkour game using pygame, PIL, and OOP programming with a delicate interface.
- Simulated a 2D physics engine; Explored Perlin Noise, Simple Noise, Boids' Algorithm.

Hackathon, Hack@CMU, CMU Spring 2021

- Built a bus tracker webpage for Pittsburgh Port Authority; Developing app-based.
- Participated in Hack@CMU; Joined ACM@CMU and organized next hackathon.

Handwriting Recognition Webpage, Github, CMU Fall 2020

- Turned a neural network with Google Colab in python; Incorporated to a webpage.

Ecological Research, Polar bears' prisoner's dilemma, NFLS High School Spring 2020

- Used game theory to study Polar Bears' mutualism strategy with Arctic Terns; *Technological Innovation and Application*, 30(2019):7-8, ISSN 2095-2945.
- Further conducted comparative Ecology research on blue algae.

Math Competition Honors: AMC Honor Roll + Euclid Contest Top Tier. Spring 2020

Skills

Technical

Proficient:	Familiar:
Python – pandas, pytorch	Standard ML
C++/C	SystemVerilog
Javascript, Angular JS	R/Matlab

Language

Proficient:	Familiar:
English	French
Chinese	
Nanjingese	

Hobbies

Photography Hobbyist, Nature Lover
Plant Lover, Gardening Enthusiast