

Yilin Li

Website: <https://yilinli-um.com/portfolio/>
GitHub: <https://github.com/Phantom-eva>

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Education Background

- University of Michigan - Ann Arbor** MI, USA
Master of Science in Electrical and Computer Engineering (Minor: Computer Vision) Sep 2021 - Apr 2023
GPA: 4.00/4.00
Courses: Data Manipulation and Analysis, Machine Learning, Computer Vision, Database Application Design
- Zhejiang University** Hangzhou, China
Bachelor of Engineering in Electronic Information (Minor: Information Engineering) Sep 2017 - June 2021
GPA: 3.68/4.00 (Major: 3.82/4.00)
Courses: Numerical Analysis Methods, Digital Image Processing, Data Analysis and Algorithm Design, Computer Organization and Design, Wireless Network Application

Skills Summary

- Programming Languages:** C/C++, Python, Java, JavaScript, HTML, CSS, Shell, SQL, Julia, Verilog, MATLAB
- Tools & Frameworks & Platform:** Git, Linux, PyTorch, TensorFlow, Django, React, Flask, Pandas, AWS, Docker, MongoDB, FPGA

Related Experience

- Huawei Hangzhou Research Institute** Hangzhou, China
Software Development Engineer Intern July 2020 - Aug 2020
 - Code Optimization:** Reduced the cyclomatic complexity of more than 25 functions.
 - Compiler Bug Fix:** Updated dependent library versions and fixed conflicts, successfully located and solved the failure of several example test cases using the GDB debugger.
 - New Feature Development:** Learned LLVM basics and developed a new pass to estimate compilation time.
- Tokyo Institute of Technology** Tokyo, Japan
Summer School July 2019
 - Assemble Program and Analysis:** Implemented and optimized various functions of a basic calculator.
 - FPGA-implemented Applications:** Implemented a multi-machine interactive chat program and a chess game program.

Research and Projects

- Personal Website Template Built with React (JavaScript, React, HTML, CSS):**
 - Developed a modern and responsive personal website template using React, HTML, CSS, and JavaScript.
 - Implemented reusable components and optimized the website for improved performance.
 - Integrated various features such as navigation, contact forms, and portfolio sections to showcase projects and skills.GitHub: <https://github.com/Phantom-eva/portfolio>
- A Compiler For The COOL Programming Language (C++, Cool):**
 - Designed and implemented a compiler for the COOL (Classroom Object-Oriented Language) programming language.
 - Developed lexical analysis, syntactic analysis, semantic analysis, and code generation phases.
 - Successfully compiled the COOL high-level language to MIPS assembly and executed on SPIM, the MIPS simulator.GitHub: <https://github.com/Phantom-eva/Compiler>
- Multiplayer Gobang Based on Reinforcement Learning (Python, Reinforcement Learning, Transformer):**
 - Developed a multiplayer Gobang (also known as Five in a Row) game using reinforcement learning techniques.
 - Utilized reinforcement learning algorithms, such as deep Q-learning, to train an AI agent to play Gobang.
 - Evaluated the AI agent's performance against human players and assessed its learning capabilities and gameplay effectiveness.GitHub: https://github.com/Phantom-eva/AlphaZero-Gobang_3player
- Image Inpainting Using GAN, Partial Convolution And Region Normalization (Python, Computer Vision, GAN, PyTorch):**
 - Developed an image inpainting system using state-of-the-art techniques including Generative Adversarial Networks (GAN), Partial Convolution, and Region Normalization.
 - Demonstrated the effectiveness of the system through extensive experimentation and evaluation on diverse datasets.GitHub: https://github.com/Phantom-eva/image_inpainting

Honors and Awards

- Outstanding Graduate of Zhejiang University - 2021
- Meritorious Winner in Mathematical Contest in Modeling - 2020
- University Student Scholarship of Texas Instruments - 2019
- Outstanding Volunteer of Zhejiang University - 2019

Other Experience

- Volunteer teacher in elementary school** Jinhua, China
Taught more than 30 students science and managed the daily affairs of the class Summer 2018