Wang, Qifan

Current Program: Bachelor of Wireless Engineering
Nationality: China
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GitHub: https://github.com/LdBeth

Education

2020/08- College of Engineering, Auburn University, AL, USA.
Estimated graduation time: Spring 2024. **Cousework:** Signal Processing and Circuit Design.

Awards and Honors

2022 Fall Dean's List, Samuel Ginn College of Engineering
2021 APL Problem Solving Competition Phase I Winners

Experience and Skills

Software development, many different programming languages (Procedural, declarative, functional, object-oriented, assembly; name a few: APL, C, Common Lisp, Forth, MMIX, OCaml, SML, XSLT, ..., Python, Java), different operating systems (Linux, NetBSD, OpenVMS, Plan9), formal verification tools (HOL, ACL2), SPICE simulation (Gnucap), version control tools, basic web development and computer typesetting, presentation tools.

Audio & image processing. Technician level Amateur Radio license.

Notable Programming Projects

PNMaster, an image processing algorithm collection build around NetPBM format implemented in APL.

`https://github.com/LdBeth/pnmaster`

- Developed and implemented an extensive collection of image processing algorithms using APL, specifically tailored for NetPBM format, including bi-color/multi-color digital halftone, Gaussian blur, image denoise filter, and steganography encoder.
- Demonstrated a pivotal role as the sole programmer of the project, gaining in-depth knowledge and hands-on experience in image processing techniques and parallel/array computing principles.
- Enhanced programming skills on programming in a relatively obscure and minor language, APL.

Symbulator, a solver program for linear electric circuits, collaborating with Roberto Perez-Franco.

`http://www.symbulator.com`

- Testing programs and proof-reading documentation.
- Communicated with domain experts in the field of electric circuits to implement various programs, and made contributions to the development of simulation methods for Bipolar Junction Transistors and Field Effect Transistors.
- Conducted rigorous testing of the program against state-of-the-art circuit simulation frameworks, identifying and addressing multiple errors in widely-used circuit analysis courseware utilized worldwide.

Fixed various floating point related bugs in various Lisp Compilers

- Exponential floating-point printer in Clozure CL.
- Complex number division in Chez Scheme.

Hobbies

Electronic & generative music. Digital halftone. Computer typesetting. Software preserving and restoration.