

# Yi Chien (Jason) Lin

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## RESEARCH

### FPGA/PARALLEL COMPUTING LAB | GRADUATE RESEARCHER

Sept. 2020 – Present | Los Angeles, CA

Worked with **Professor Prasanna** on heterogeneous computing.

### DATA PROCESSING SYSTEM LAB | UNDERGRADUATE RESEARCHER

Sept. 2018 – July. 2020 | Taipei, Taiwan

Worked with **Professor Yi-Chang Lu** on hardware accelerator for DNA sequence alignment.

- Designed Application-Specific Integrated Circuit (ASIC) for sequence alignment with two-piece affine gap tracebacks.
- Implemented Smith-Waterman algorithm using systolic array. [\[Link\]](#)

### MICRO SYSTEM RESEARCH LAB | UNDERGRADUATE RESEARCHER

July. 2019 – Jan. 2020 | Taipei, Taiwan

Worked with **Professor Tzi-Dar Chiueh** on digital circuit design.

- Taped-out a 5 stage pipelined RISC-V CPU on a 1.5mm × 1.5mm chip with 180nm technology. [\[Link\]](#)
- Perform the entire IC design flow, from design to synthesis, place& route, verification and tape-out.

## PUBLICATION

- [1] **Yi-Chien Lin**, Bingyi Zhang, and Viktor Prasanna. Gcn inference acceleration using high-level synthesis. In 2021 IEEE High Performance Extreme Computing Conference (HPEC), 2021.
- [2] Jing-Ping Wu, **Yi-Chien Lin**, Ying-Wei Wu, Shih-Wei Hsieh, Ching-Hsuan Tai, and Yi-Chang Lu. A memory-efficient accelerator for dna sequence alignment with two-piece affine gap tracebacks. In 2021 IEEE International Symposium on Circuits and Systems (ISCAS), 2021 [\[Link\]](#).

## EDUCATION

### UNIVERSITY OF SOUTHERN CALIFORNIA | PHD IN ELECTRICAL ENGINEERING

Sept. 2020 - Present | Los Angeles, CA • Cum. GPA: 3.93/4.0

### NATIONAL TAIWAN UNIVERSITY | BS IN ELECTRICAL ENGINEERING

Sept. 2016 - June. 2020 | Taipei, Taiwan • Cum. GPA: 3.75/4.3

## WORK EXPERIENCE

### HEWLETT & PACKARD INC.(HP) | ELECTRICAL ENGINEERING R&D INTERN AT COMMERCIAL NOTEBOOK TEAM

July. 2019 – July. 2020 | Taipei, Taiwan

- Developed a software that could enhance efficiency of cursor movement. Idea has been patented by HP.
- Developed a system that provides users with different preference settings based on different scenario.

## AWARDS & PATENTS

### FACE ORIENTATION BASED CURSOR POSITIONING ON DISPLAY SCREENS | 2021

Patent Publication Number: WO/2021/145855 [\[Link\]](#)

### NTUEE UNDERGRADUATE INNOVATION AWARD | 2019

Third Prize

## LANGUAGES

### PROGRAMMING

Verilog/SystemVerilog • High-Level Synthesis • C/C++ • Python

### TOOLS

Xilinx Vitis • Cadence NC-Verilog • Synopsis Design Compiler • Cadence Innovous

### ENGLISH

GRE:

V:154, Q:169, AW:3.5

TOEFL:108

R:29, L:29, W:27, S:23