

ALEX CHEN

alexclc.com | 216-313-3546 | achen656@usc.edu | www.linkedin.com/in/alexclc

EDUCATION

University of Southern California Los Angeles, CA
Bachelor's in Computer Engineering & Computer Science | GPA: 3.95 May 2026
Relevant Coursework: Logic Design, Computer Architecture, Intro to Digital Circuits, Data Structures

TECHNICAL SKILLS

Languages: Verilog, Python, Java, C, SQL, HTML/CSS/JS | Software & Systems: Altium, TensorFlow, Vivado, ModelSim

PAID EXPERIENCE

Originsilicon Integrated Circuit Company Nanning, China
R&D Intern July 2024-August 2024

- Applied Verilog to state-of-the-art logic & circuits for display units
- Designed semiconductor layouts with Laker, realized logic gate designs for HD/720(RGB) phone LCD drivers
- Collaborated with senior digital designers to customize semiconductor layouts, achieving up to 50% layout size reduction

Dexter Medical Informatics Cleveland, OH
Consulting/Engineering Intern May 2024-June 2024

- Developed a cost-reduction strategy for brain implant device safety by reusing models and codes from 15 previous clinical trials
- Researched literature to propose two solutions for operating room supply chain optimization

ACADEMIC PROJECTS

Circuits with Artix-7 Los Angeles, CA
FPGA Circuit Design & Verification September 2024

- Coded functions including number locks, LED/SSD displays, application-specific calculating units in Verilog
- Administered testing, synthesizing, device programming in Vivado to verify signal integrity and reduce clock cycles
- Mediated a team of 4 to ensure accurate timing closure and meet design specifications within tight constraints

Python Lab File Organizer Remote
Automation & Data Management February 2024-April 2024

- Engineered Python scripts to automate file organization, reducing manual labor by over 2 hours per session
- Created detailed protocols for 3 distinct code applications, enhancing accessibility for all team members

Java The Legend of Landlock Remote
Interactive GUI Development February 2023-April 2023

- Implemented JavaFX application based on a 6X6 board and 40 cards allowing user to play with default or customize boards
- Programmed features including 8 types of cards, 7 card placement rules, card rotation, and button interfaces for user
- Enforced code testing covering "test 0, 1, many" and "test first, middle, last", made accessible to nontechnical personnel

RESEARCH EXPERIENCE

ShoffLab, Case Western Reserve University Cleveland, OH
Research Assistant February 2023-Present

- Leverage Python and Pandas to automate data processing for intracortical microelectrode performance analysis
- Enhance lab hardware design by conducting performance evaluations of electrodes leveraging Electrical Impedance Spectroscopy, leading to elimination of 15+ electrodes and ensuring compliance with industry standards

Chao Lab, National Taiwan University Taipei, Taiwan
Research Assistant June 2023-August 2023

- Updated Python code to recognize and count biomimetic tendon structures for reducing adhesive failure rates
- Acquired experience in learning & collaborating with colleagues, statistics in presentations, problem-solving for two months

LEADERSHIP EXPERIENCE

Peer Tutor Center Cleveland, OH
Calculus/Static Physics Tutor February 2024-April 2024

- Fostered a collaborative learning environment, encouraged peer-to-peer sharing of problem-solving 6 hours per week
- Communicated with patience and adaptability, adjusting teaching methods to match individual learning styles for 20+ students

CERTIFICATES

Google Data Analytics – Coursera May 2024