Oliver Lee

571-251-7744 - oliverlee.csee@gmail.com - linkedin.com/in/oliver-s-lee - oliverscorner.net

EDUCATION

Georgia Institute of Technology **Atlanta, GA**
Bachelor of Science in Electrical Engineering (GPA: 4.00) *May 2025 - May 2028*

Georgia Institute of Technology **Atlanta, GA**
Bachelor of Science in Computer Science (GPA: 4.00) *June 2023 - Dec. 2025*

TECHNICAL SKILLS

Programming: Python, C/C++, Bash, Java, MATLAB, SystemVerilog, VHDL
Software: Cadence Innovus, Git/GitHub, KiCAD, Klayout, ModelSim, Ngspice, OnShape, Quartus Prime
Tools: 3D Printing, Laser Cutting, Multimeter, Oscilloscopes

WORK EXPERIENCE

Research Intern
Georgia Tech Research Institute (GTRI), GA *May. 2026 - Aug. 2026*

- Fabricated carbon nanotube (CNT) infrared emitter pixels using micro/nano-fabrication techniques including photolithography, plasma etching, and CNT deposition
- Developed a 10×10 CNT emitter array for infrared scene projection and evaluated radiance, modulation bandwidth, and thermal response of CNT pixels.

Research Computing Facilitator Intern
Partnership for an Advanced Computing Environment (PACE) at Georgia Tech, GA *May 2025 - May 2026*

- Assisted with parallel computing workflows (OpenMP) and improved PACE web infrastructure by resolving accessibility and reliability issues; completely resolved all existing accessibility errors as of August 2025.
- Supported researchers using Georgia Tech's Phoenix HPC cluster through software installation, environment configuration, and workflow troubleshooting.

RESEARCH EXPERIENCE

Research Assistant
Integrated Computational Electronics (ICE) Lab at Georgia Tech, GA *Aug. 2025 - Present*

- Collaborated with 4 other members in the development of the ASHES tool used for programming Field Programmable Analog Arrays (FPAAs) and generating tapeout files for analog computing applications.
- Verifying ASHES capabilities by implementing and validating a C4 bandpass filter on the FPAA through the unified flow to demonstrate functional coverage and toolchain correctness.

Research Assistant
Jia Laboratory for Systems Biophotonics at Georgia Tech, GA *Sep. 2024 - Dec. 2025*

- Developed a Python codebase for 3D Multifocal Scanning Microscopy (3D-MSM), improving speed and efficiency compared to the original MATLAB implementation.
- Co-authored of a peer-reviewed publication, "Resonant multi-focal scanning super-resolution microscopy with extended depth and field-of-view."

PROJECTS

- **Code-A-Chip 2026**, implemented an open-source ASIC physical design flow using LibreLane and the SKY130 PDK and developed Python scripts to characterize and visualize timing behavior of delay-locked loop (DLL) circuits.
- **PixShift**, capstone project for CS 3651. A DIY camera with a custom 64 pixel camera sensor (composed of a grid of phototransistors on a custom PCB) mounted on a linear actuator. It is capable of taking grayscale images with resolutions up to 8 by 16 pixels.

EXTRACURRICULAR ACTIVITIES

Physical Design Team Member
SiliconJackets *Nov. 2025 - Present*

- Bringing up a design flow using open-source tools and the SkyWater SKY130 PDK.