

Lincoln A. Scheer

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Computer Engineer with experience in embedded systems, firmware development, and semiconductor device fabrication. Skilled in C/C++, Python and Assembly for hardware-level programming, debugging and system integration. Skilled with linux based environment, microcontrollers, and low-powered PCB design. Demonstrated success leading and working on complex research projects involving sensor systems, device fabrication, and technical documentation.

EDUCATION

Fort Lewis College, Durango, CO

Bachelor of Science in Computer Engineering | Expected December 2025

- Dean's List: 2023, 2024
 - Research Grants Awarded: \$19,000+ (UAF BLaST, FLC PIF, NSF STROBE)
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TECHNICAL SKILLS

Programming & Firmware Development

C, C++, Assembly (AVR, x86_64, RISC-V), Python, Java, Verilog/VHDL

Embedded Systems & Hardware Integration

ESP32/Arduino, ATmega328P, Zynq ZedBoard, PCB Design (Cadence, Eagle), FPGA, I²C, SPI, UART, Sensor Integration

Operating Systems & Tools

Linux/Unix, Git/GitHub, Bash, MATLAB, IntelliJ, OpenGL, Vulkan

Semiconductor Fabrication & Lab Tools

Photolithography (AZ 1512, AZ 2020), Wet Etching (BOE), Spin-Coating, Cleanroom Protocols

Additional Skills

Technical Documentation, Cross-Dicipline Collaboration, Data Analysis & Visualization, AI-Driven Calibration

PROFESSIONAL EXPERIENCE

Software Developer

Fort Lewis College, FLC 3D Solar Lab | August 2025 - present

- Developing secure, scalable web applications using the Django framework to support student researchers and community stakeholders.
- Implementing data-handling protocols aligned with cybersecurity best practices for academic and public access.
- Designing user-focused interfaces that translate complex research workflows into intuitive, accessible platforms.
- Collaborating with faculty and cross-disciplinary teams to integrate real-time solar energy data into web-based visualization and reporting systems.
- Applying secure deployment practices to maintain high availability and resilience in public-facing applications.

Research Assistant

Fort Lewis College, Casey Air Quality Lab | August 2022 – May 2025

- Contributed to the development of a low-cost CO₂ flux-chamber system—designing, fabricating, and testing sensor modules
- Developed AI-driven calibration routines, reducing sensor RMSE from ~150 ppm to <25 ppm
- Deployed sensor arrays during environmental events to generate geospatial concentration maps
- Secured \$19,000 in research funding through competitive grants (BLaST, PIF, STROBE)
- Presented findings at the 2024 Air & Waste Management Association Conference
- Collaborated on environmental sensing projects, strictly following established SOPs

Physics Tutor

Fort Lewis College | February 2024 – May 2024

- Assisted undergraduates with physics concepts, problem-solving strategies, and mathematical techniques
- Adapted teaching methods to accommodate diverse learning styles and proficiency levels

SIGNIFICANT PROJECTS

Senior Capstone: PMOS MOSFET Fabrication & Characterization | August 2024 – May 2025

- Lead photolithography processes, developing and documenting new procedures
- Participated in the design, fabrication, and electrical testing of PMOS devices on 2" Si wafers
- Developed and maintained the FLC Nano Lab documentation website (<https://flcnanolab.github.io/>)

Low-Cost CO₂ Flux Chamber Development | May 2022 – May 2025

- Designed a microcontroller-based PCB control and data-acquisition module for environmental sensors
- Optimized performance through non-linear equation modeling to minimize signal-to-noise ratio
- Explored calibration strategies including neural-network-based methods and field validation

AWARDS & RECOGNITION

- Fort Lewis College Undergraduate Research Scholar of the Year (2025)
- BLaST Undergraduate Research Grant: \$10,000 (2022–2023)
- Pay-It-Forward Grant: \$4,000 (2023–2024)
- STROBE Summer Undergraduate Research Scholars Award: \$5,000/\$6,000 (2024)