# **George Peter Maidhof**

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# **EDUCATION**

Cornell University, College of Engineering
Master of Engineering in Electrical and Computer Engineering

Ithaca, New York

Anticipated Graduation: May 2025

Anticipated Graduation: December 2025

## **Bachelor of Engineering in Electrical and Computer Engineering**

• Minor in Computer Science | Engineering Leadership Distinction from Selanders Engineering Leadership Program

**Relevant Courses:** Strategic Management of Technology, Advanced Computer Architecture, Systems Programming, Digital Design (VLSI), Embedded Operating Systems, Microcontrollers, Functional Programming, Object-Oriented Programming

#### PROFESSIONAL EXPERIENCE

Cornell Zhang Research Group - Undergraduate Research Assistant

May 2023 - Present

- Development of an MLIR compiler to process multiple software languages to pre-optimize FPGA routing and layout
- Research and establishment of a 14-page tutorial for ECE 6775: High-Level Digital Design Automation graduate course
- Data abstraction from report files on memory allocations of FPGAs through parsing in a readable CSV format and graphing

Marvell - Logic Design and Digital Verification Engineer Intern

May 2024 - August 2024

- Created a UVM testbench, verification plan and documentation for effective stakeholder communication
- Debugged test module to gain experience in verification techniques such as waveform, regressions, quality analysis, and coverage
- Prioritized a switch in our team from SimVision to Verisium resulting in improved waveform dumping timing by 303%

## LEADERSHIP EXPERIENCE

Cornell Engineering Leadership Program - Teaching Assistant

November 2022 - Present

- Mentor the current cohort enabling soft skill development, intrapersonal growth, and professional development
- Founded "CU Bee Happy", driving campus engagement through strategic initiatives and connections through campus partners
- Selected among 22 other engineers for a specialized leadership program designed to foster personal leadership, management techniques, and effective communication, with an emphasis on the implementation of effective group dynamics

#### Cornell Housing and Residential Life - Residential Advisor

August 2022 - Present

- Serve as a leader to over 500 students by initiating events, conducting resident one-on-ones, and creating inclusive communities
- Perform administrative tasks such as on-call rounds, documentation, budgeting for events, and alignment on community policy

## Project Team, Cornell Nexus - Full Team Project Lead

March 2022 - December 2024

- Led a cross-functional team of 55+ students across Engineering, Business, and Design to develop an autonomous beach-cleaning robot, driving product vision and execution
- Spearheaded team restructuring by defining roles (e.g., media specialist, web designer, technical writer, financial advisor) improving operational efficiency and collaboration
- Drove a 468% increase in applications and 2187% annual funding growth by implementing targeted outreach strategies
- Established a team wiki and workflow system to improve knowledge sharing and streamlining cross-functional communication

# PROJECT EXPERIENCE

- Championed "Up Lift" in Animal Health Hackathon: facilitated processes, streamlined web-design and spearheaded our prototype
- Designed a five-stage stalling multi-cycle processor in Verilog supporting both 2-way set associative and direct mapped cache
- Routed, and verified an 8-bit ALU in Cadence Virtuoso with operations consisting of add, subtract, AND, OR, XOR, and inversion including tristate buffers, registers, enable signals, and a 3 to 8 decoder

#### **SKILLS**

- Technical Skills: Soldering, Heat Shrinking, Multimeter Testing, Microcontrollers, Python, C, C++, System Verilog, Assembly
- Product Skills: Github, Verisium, Vim, Vivado, Altium, LTSpice, CAD
- Tools: Jira, Confluence, Excel, Microsoft Teams, Monday.com