COLLIN SOIK

ELECTRICAL AND COMPUTER ENGINEERING

🎓 EDUCATION

Bachelor of Science in Electrical and Computer Engineering
NC State · Raleigh, NC
2027 | 2023
GPA: 3.94

Exchange Student - Computer Engineering Program
ZHAW University · Winterthur, Switzerland
July 2024 | Feb 2024
Exchange program focused on computer engineering

💼 EXPERIENCE

Full-Stack Developer & Technical Lead
Self-Employed - syntexstudios.io · Raleigh, NC & New York, NY
Present | Feb 2024
- Developed full-stack web applications using React, Node.js, and PostgreSQL for 25+ client projects
- Implemented CI/CD pipelines and automated testing frameworks, reducing deployment time by 60%
- Architected scalable microservices and RESTful APIs handling 100k+ daily requests

Customer Quality Engineer Intern
Lenovo · Mooresville, NC
Dec 2024 | May 2024
- Managed industry client cases by debugging and testing failure samples and providing resolutions for industry clients
- Developed code to streamline existing processes in the lab, improving efficiency and reducing manual workload
- Traveled to various client sites on the east coast to oversee contractor teams and lead hardware/software reworks

President
Digital Design Club · Raleigh, NC
Present | Jan 2024
- Lead weekly meetings and work with guest speakers to hold workshops on various aspects of digital design such as FPGA tool chain, ASIC design, and Logic Structures

Process Engineering Intern
Kyma Technologies · Raleigh, NC
May 2024 | Jan 2024
- Worked with industry partners to secure funding for research endeavors and explore the viability of applications of Wide Band Gap GaN technology
- Developed hardware and software to streamline existing workflows and testing methods
- Tested and characterized devices for research briefs and updates

Undergrad Research Assistant
NC State · Raleigh, NC
June 2024 | Nov 2023
- Working with Spyridon Pavalidis, assisting in his research on exploring surface and bulk defect states for high-power vertical GaN Diodes with Mg Implantation
- Experience working in the NCSU Nanofabrication Facility as part of the research fabricating samples and testing/characterization of devices

Founder
Wolf Gobble Boxes · Raleigh, NC
Present | Sept 2023
- Founded a meal-prepping service company that helps students consistently get healthy meals
- Currently services 30 recurring students on a weekly basis with varying meal amounts
- Manage a small team of employees who work towards accomplishing the deliverables weekly

📁 SELECTED PROJECTS

FPGA Control System
Self-Balancing Robot
2024
- Designed and implemented a PD control algorithm using the FPGA toolchain to synthesize and implement into a robot design that could self-balance
- Synthesized a 32-bit CPU core using Verilog on a FPGA development board

Development Lead
Current Monitoring System for HVPE Growth Chambers
2024
- Gathered user requirements and developed product specifications for a real-time monitoring system
- Created and implemented user stories to design an intuitive UI that improved user experience and productivity

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ENGINEERING PORTFOLIO

🌐 github.com/collinsoik

CONTACT INFO

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📞 (704)-641-5242

SKILLS

Programming Languages: C/C++, Python, Java, MATLAB, Verilog

Hardware Design: FPGA Development, PCB Design, Circuit Analysis

Embedded Systems: ARM Architecture, Real-time Systems, Microcontrollers

Tools & Technologies: Git, Linux, Vivado, KiCad, Oscilloscopes

Software Development: Data Structures, Algorithms, System Design

Testing & Debug: Hardware Debugging, Unit Testing, Signal Analysis

TECHNICAL EXPERTISE

Hardware: FPGA Design, PCB Layout, GaN Technology
Digital Design: Verilog HDL, SystemVerilog
Embedded: ARM Architecture

Resume typed fully in HTML/CSS
Inspired by Min-Zhong John Lu