# **Max Stopyra**

**Electrical And Computer Engineer** 

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Electrical Engineer with expertise in circuit design, system testing, machine learning, and cross-functional collaboration. An Olin Engineering graduate committed to utilize technical skills and innovative problem-solving to promote excellence in electrical systems development.

## **Work Experience**

## **Machine Learning Engineer**

Nov 2024 - Present

Integrated Solutions International, LLC. | Winston Salem, NC

- Developed production-grade mobile computer vision system for Blue Rhino, using Python, TensorFlow Lite, MediaPipe, and MobileNet to automate transaction verification across 28,000+ retail locations, achieving 35% accuracy improvement over baseline
- Designed and developed custom interface PCB enabling seamless Liquid Controls LCR gas meter connectivity to handheld mobile devices and printers through triple-protocol architecture (RS-232, Bluetooth 4.0, Wi-Fi 802.11), reducing measurement data transfer time by 75% and eliminating connectivity errors

## **Applications Engineering Intern**

Jun 2024 - Oct 2024

Analog Devices | Wilmington, MA

- Research and validate use cases for Gallium Nitride semiconductor technology on CTO's office R&D team
- Use Allegro and Cadence Design Suite to design, layout, test, and fabricate GaN-based power converters for long-term reliability testing of GaN FETs, gate drivers, and controllers

#### SFQ Circuit Design Engineering Intern

May 2022 - Sep 2022

MIT Lincoln Laboratory | Lexington, MA

- Use Cadence and Virtuoso to design and test single flux quantum circuitry for use in quantum computing nanosystems
- Create LISP software tools and applied physics to bolster the efficiency of single flux quantum integrated circuit design process

## **Telematics Test Engineering Intern**

Oct 2020 - Aug 2021

Nissan | Farmington Hills, MI

- Conduct end to end wireless communications tests for R&D on EV telematics systems using TestRail and in-house test software, ensuring efficient functionality for end-users, optimizing OTA system architecture for new EV related infrastructure
- Working with manufacturing, used KiCad, Altium, and SolidWorks to design and improve hardware used in static testing of electromechanical dashboard prototypes and production-level telematics systems

## **Projects**

Aardvark Audio Aug 2023 - Present

Scaffold business focused on design of digital/virtual synthesizers in C++ for contemporary musicians and producers

#### 3D-Gesture MIDI Controller

Nov 2022 - Jan 2023

Design and create a standalone, capacitive gesture sensing midi controller using KiCad, Altium, and embedded software in C

FPGA-Based DAC Oct 2020 - Aug 2021

Design and implement a sigma-delta digital-to-analog converter in SystemVerilog

## Mixed Analog and Digital VLSI Projects

Aug 2023 - Dec 2023

Using Xschem, Magic, LTSpice, NetGen, LISP, and SKY130PDK, design, test, layout and verify various mixed-analog-and-digital integrated circuits for precision applications

### **Core Skills**

KiCad, Eagle, Spice, Layout, Rust, Audio Engineering, MATLAB, Python, LISP, Verilog, SystemVerilog, Cadence Suite, LVS, Xschem, Backpacking, Embedded Systems, Electronics, Controls, Power Systems, Power Electronics, Sustainability, Renewable Energies, Logic Design, Quantum Computing, Mixed-signal VLSI, Sustainable agriculture, Magic VLSI, Project Management, Product Development, Team-Building, Power Distribution, Electrical Design, Problem-Solving Skills, Energy Management, Effective Collaboration, Collaborative Design with end-users, DSP, Software Architecture, Electrical Engineering, Firmware Development, Medical Devices, Eagle Scout, Machine Learning, AI, C/C++

### **Education**

Olin College of Engineering

Feb 2020 - Dec 2024

Bachelor of Science Electrical Engineering and Computer Engineering

## Victoria University of Wellington

Dec 2023

Minor Jazz Studies and Music Production

#### **Interests**

Jazz, Modular Synthesis, Sustainable Beekeeping, Backpacking, Music Production, Audio Engineering, Biking, Community Organizing, Safe Cycling Advocacy, Gardening, Upright and Electric Bass, Music Instruction, Multi-Media Art Collectives, Audio Plugin Development, Synthesizers, Neuroscience, Non-Profit Excellence