Ryan Lee

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EDUCATION

NORTHWESTERN UNIVERSITY — Evanston, IL
M.S. + B.S., Computer Engineering — Expected March 2028
B.M., Percussion Performance

- Cumulative GPA: 3.8/4.0; Dean's List 6x
- Relevant Coursework: Computer Architecture (ARM/Assembly); Computer Systems (C/C++); Embedded Systems (USB/I2C); Digital Signal Processing; ASIC & FPGA Design; Computer Vision + ML

WORK EXPERIENCE

NVIDIA — Santa Clara, CA
ASIC Design Intern — Spring 2026

- Designed clock frequency counter module utilizing Verilog with full ownership of development cycle
- Connected end-to-end workflow by designing architecture, HDL code, testbenches, & technical documentation while running synthesis & verification tests
- Delivered immediate, usable results for NVLink interconnect teams across the company

RECAT — Evanston, IL
Principal Software Engineer — 2023 – 2024

- Built cross-platform mobile app on React Native to help early stage startup get off the ground into alpha
- Gathered feedback from 20+ sources to build foundation of a new product and attract first 10 active users

CONCERTS @ BIENEN — Evanston, IL
Technical Services Staff — 2022 – 2023

- Served as facility technician for the 15+ events held at the Bienen School of Music each week
- Operated stage, video, and audio equipment behind the scenes in each of the school's 4 state-of-the-art venues

PROJECTS

LIVE ACOUSTIC NEURAL HARMONIZER

- Engineered real-time neural harmonization JUCE VST plugin, generating MIDI accompaniment from live acoustic inputs
- Designed concurrent, dual-process architecture with Python to bridge predictive note detection & generation models, utilizing event-driven audio DSP segmentation to reduce latency & enable live performance

RISC-V PIPELINED PROCESSOR

- Designed single-cycle 32-bit RISC-V processor in Verilog, including execution unit & datapath for subset of instruction set
- Advanced design to pipeline architecture, implementing pipeline registers between stages to increase instruction throughput

JUMPSTART @ THE GARAGE

- Attended Northwestern's premier startup pre-accelerator program as part of the 2023 ReCat software team
- Collaborated with 20+ founders/VCs over 10 weeks, developing novel approaches to product validation & market research

ORGANIZATIONS

BLUE DEVILS PERFORMING ARTS — Concord, CA
Performer — 2019 – 2026

- Worked with audio engineers to configure multi-channel wireless audio systems for live stadium performances
- Earned championships with The Blue Devils & RCC Indoor Percussion, both top world class marching arts ensembles
- Performed and rehearsed up to 12 hours daily while touring cross-country on bus during summer & winter seasons

ADDITIONAL

Technical Skills: C++, Python, Java, Javascript, React, Verilog, Assembly, MATLAB, CUDA
PCB, Soldering, Oscilloscope, Intel Quartus, Git, Microsoft Office/Visual Studio, Adobe Suite/Premiere Pro