JONAH SUSSMAN

ENGINEERING PHYSICS + ECE

CONTACT

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EDUCATION

January 2025 - December 2025
CORNELL UNIVERSITY

- Anticipated Master of Engineering in Electrical & Computer Engineering

August 2021 - May 2025
CORNELL UNIVERSITY

- BS in Engineering Physics
- Minor in Electrical & Computer Engineering
- GPA: 3.73

RELEVANT COURSEWORK

- Photonics: Fundamentals and Devices
- Intermediate Quantum Mechanics
- Intermediate Electrodynamics
- Intro. Microelectronics
- Digital Logic and Computer Organization
- Intermediate Mathematical Physics
- Quantum Information Hardware
- Signals and Systems
- Statistical Thermodynamics

ABOUT ME

I am a student at Cornell University studying Engineering Physics and ECE. On top of the technical skills I've learned in school, my experiences have taught me a great deal about communication/collaboration, planning/organization, and problem solving. I take pride in being able to learn on the job and get things done. My interests include optics and photonics, circuit design, quantum computing, and condensed matter physics.

WORK EXPERIENCE

Nokia Bell Labs — **Summers 2023, 2024**
Optical Hardware R&D Intern

- Used MATLAB to develop clock recovery algorithm for ultra-low-energy optical clock (<1 photon/second)
- Designed FFT-based disciplining scheme to prevent drift of ultra-low noise crystal oscillators
- Used python and SQLite to develop cesium clock monitoring solution to detect end-of-life indicators for cesium beam tube of 5071A atomic frequency standard
- Repaired and modified circuit packs by soldering/unsoldering parts including surface mount resistors, capacitors, and IC chips
- Fusion spliced optical fibers for part changes such as a 1x8 optical switch in an OTDR

Kyle Shen Group at Cornell University — **September 2023 - present**
Quantum Materials Researcher

- Investigating the use of laser cutters for device patterning of thin-film superconductors
- Measuring electrical characteristics of laser-patterned films

The Chordials A Cappella — **December 2022 - December 2024**
Musical Director

- Planned rehearsal agendas in advance to ensure readiness for our semesterly concert
- Led rehearsals while balancing productivity and an enjoyable group atmosphere
- Provided musical feedback to promote constant growth in the quality of our music
- Met with members outside of rehearsal time to provide extra practice when needed

General Physics II at Cornell University — **January 2023 - May 2023**
Teaching Assistant

- Answered students' questions regarding course content
- Administered lab checks to ensure students' understanding of labs

REstyle AI — **March 2021 - January 2023**
Front End Software Development Intern

- Built front end of AI shoe image generator web app using HTML, CSS, JS, and GSAP
- Developed front end of AI hairstyle try-on mobile app using React Native
- Built promotional website using HTML, CSS, JS, Lottie, ScrollMagic, and GSAP

T. Thomas Fortune Cultural Center — **September 2020 - January 2021**
Full Stack Software Engineer

- Learned Flutter/Dart and applied knowledge to build and release "Red Bank History" walking tour app for iOS and Android, all within the span of five months
- Integrated Dart code with Firebase for data storage and retrieval