

# Jason Hanna

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## EDUCATION

Rochester Institute of Technology, Rochester, New York	Expected Graduation: May 2026
Bachelor of Science and Master of Science in Electrical Engineering	GPA: 4.00
Relevant Coursework:	
EEE 610: Analog IC Design – Focused on OTA and Op-Amp Design/Layout	
EEE 620: Design of Digital Systems – Created quarter pad-frame design using custom-made standard cell library with optimized layout techniques. 16-bit adders were connected to a scan-chain within the pad frame. The final design consisted of over 250,000 transistors	
EEE 789: Advanced Circuit Analysis – Research of advanced design techniques including Low Entropy Expressions, Inspection Analysis, Extra Element Theorem, Generalized Transfer Functions, Signal Flow Graphs, gm/Id, and Tapeout Topics	

### **Graduate Paper: Ultra-High Speed AC Pulse Gaussmeter using High-Precision Linear Hall-Effect Sensor**

Developing an AC Pulse Gaussmeter capable of capturing and analyzing AC magnetic field frequencies of over 50 kHz with a magnitude of over 3 Tesla. Device features probe, multi-stage amplifier, ADC, SPI interface, and power handling

### **Capstone Project: Linear RF Measurement System**

Designed measurement system to monitor behavior of transmission line circuits through normalized voltage amplitudes. S-Matrix measurements were made using Keysight VNA P9377B and displayed on a GUI

## EXPERIENCE

Microstrain by HBK, Williston, VT

*Electrical Engineering Co-Op*

May – August 2024

- Led Design of Industrial-Grade RF Communication PCB incorporating Buck-Boost Converter, LDO, ESD Protection, USB and RS-232 peripherals, Hardware Signal Filtration, and Transmission Lines
- Met specifications required for government contract within accelerated timeframe. Finalized release set to be included in main product line

Microstrain by HBK, Williston, VT

*Electrical Engineering Co-Op*

May – January 2023

- Integrated Microstrain GQ7 Device within Raspberry Pi GPSD via gpsmon interface
- Redesigned, Manufactured, and Debugged Microstrain C-Series Connectivity Board
- Designed CV8/INS-8 Platform Board Utilizing ADIS16607 MEMS IMU & LPS22DF Pressure Sensors
- Evaluated performance of STM and Bosch Pressure Sensors in varying environmental conditions

Parker Lord Microstrain, Williston, VT

*Electrical Engineering Co-Op*

May – August 2022

- Performed research project on Ethernet Circuits and Stratum Servers
- Successfully achieved PPS Synchronization between multiple clients using RS-232 protocol and custom integration of PPS host
- Designed GNSS Tester Board for Quectel LG69TAAMD device with Altium Designer

IBM, Essex, VT

*Engineering Apprenticeship*

March – June 2021

- Developed Python Application which scraped and analyzed stock prices

University of Vermont, Burlington, VT

*Student Research Assistant*

June 2020 – May 2021

- Researched Tetrahedral Cage Molecules using Chemical Modeling Software in collaboration with Professor Dr. Schneebeli and Faculty

## SKILLS

Programming Languages: C, C++, Python, MATLAB, ASM, Java, Linux, Verilog, VHDL

Software: Cadence Virtuoso, LTspice, Altium, Quartus, Git

Hardware: ASIC, FPGA, Oscilloscope, Network Analyzer, Multimeter, Logic Analyzer

## AWARDS

Vermont State Scholar, RIT Presidential Scholars Award, RIT Recognition Scholars, Dean's List with Distinction (All Semesters)