

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: EEEE 610: Analog IC Design – Focused on OTA and Op-Amp Design/Layout
EEEE 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
EEEE 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. Schneebeil 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)