

Kayleen Welch

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Rochester Institute of Technology

Electrical Engineering Technology/ Bachelor of Science · Expected May 2020

Minor: Environmental Studies

GPA 3.15

Objective: Looking to apply my work experience, lab projects, research, and coursework to a Summer Full-Time/Co-op in the field of Electrical Engineering, available May 2020

Relevant Courses

| | | |
|--------------------------------------|---------------------------|-------------------------|
| Electronic Machines & Transformers | DC & AC Circuits | Electronics I & II |
| Signals, Systems & Transforms | Photovoltaic Systems | Digital Systems I & II |
| Communications Electronics | Digital Signal Processing | Physics |
| Microelectronic Design & Fabrication | Engineering Econ & PM | Calculus I, II, Diff Eq |

Labs

Communications Electronics - Design, analyze and build components of communications systems, including active and passive filtering, AM and FM modulation, Oscillation and Amplification

Electronics I & II - Designed, built, simulated, and analyzed advanced networks utilizing semiconductor devices: diodes, BJT, & chip Op-Amp circuits

Microelectronic Design & Fabrication - Designed and Fabricated NPN transistor and resistor network in a Class 1000 Cleanroom Lab

Digital Signal Processing - Optimization of Analog signals by building a digital signal processing filter on a Microprocessor, and documentation in IEEE standard format

Signals, Systems & Transforms - Utilize Matlab software to derive and prove Transfer functions, Time domain and Frequency Domain Analysis

DC & AC Circuits - Designed, built, simulated and analyzed various AC and DC circuits to prove fundamental principles of Electronic Engineering

Electronic Machines & Transformers - Built & Analyzed 3-Phase Networks

Digital Systems I & II - Designed and Simulated various Logic Networks

Microcontroller Systems - Wrote programs to operate Arduino robot using Atmega328p Microprocessor and Arduino IDE

Computational Problem Solving - Used C++ to create programs to accomplish a variety of tasks using arrays, vectors, sorts, and C++ library functions

Technical Skills

Solder & Breadboarding
AWG & Oscilloscope
Altium · TeamCenter/NX
Multisim · Modelsim
Pyxis IC Software
Solar Pathfinder Software
Matlab Programming
Quartus/FPGA
Arduino IDE
C & C++
Excel / Sheets
MS Project · PowerPoint
Visio Schematic
Visio Flowchart

Soft Skills

Effective Communicator
Collaborative Team
Player
Solution-Driven
Results-Focused
Dependable
Empathetic
Organized

Work Experience

UR Laser Lab for Energetics - Electrical Engineering Co-op / Rochester NY · Jan 2019 - Present

Worked as a Research & Lab Engineer for the Electrical Engineering Department on projects in various areas from Controls to Measurement tools. Successfully followed projects from design to fabrication, testing and analysis, and implementation

RIT Lab Assistant / Rochester NY · 2018 - 2019

TA for two sections each of DC Circuits and Electronics 1 Labs; assist with equipment issues & technical questions

Home Depot MET team associate / Albany NY · 2017

Setup/Take down at various facilities, overnight packdown and displays

Howard Johnson / Amherst MA · 2014 - 2016

Maintenance - HVAC maintenance and repair, Painting, Wallpaper hanging/removal, electrical and plumbing repairs, drop ceiling installation, hardware and surface restoration

Projects

Women in Technology member Assists with community outreach, participates in meetings, team building exercises and outings. (2018)

Hotwheelz Formula Hybrid SAE Electrical team member; designed and built GLV system on all electric Formula One car; placed 3rd at nationals (2015-2016)