

# Ray Schuler - Electrical, Software, and Mechanical Engineer

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## CONTACT INFORMATION

28 Knoll Circle  
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## ENGINEERING

### **Analog Circuit Design**

Board and Chip Level Design, CMOS/BiCMOS/GaN, Transceivers, Switch Mode Power Supplies, Charge Pumps, High Voltage Drivers, Analog to Digital Conversion, Precision References

### **Software Development**

Robotic Control, Embedded Systems, DSP, Simulation, Product Characterization, Statistical Inference, Library and API development

### **Analog/Digital Systems Design**

Hot Word Detector, Ultrasonic TOF Ranging, Low Noise RF Gate Control, Parametric Measurement, Thermal Management, MFG Tool Automation, Optical Characterization

### **Mechanical Design**

Robotic Lawn Mower Chassis, Laser Alignment Fixture, Product Prototyping, 3D Modeling, Additive Manufacturing Techniques

## COMP SCI

### **Languages**

C, C++, Go, Python, R, Matlab, Bash, Lisp

### **Systems Deployment and Admin**

Unix/Linux (Redhat/Centos, Debian/Mint, OSX, Alpine), Windows, Cadence Design Suite

### **Engineering Tools**

Git, GCC, Unix ABI, Cadence Spectre/Virtuoso, LTSpice, Freecad, LaTeX

## PROJECTS

### **Recent Educational Projects**

Voice Controlled Lamp (Golang, Pico) [Project Link](#)  
Ultrasonic Rangefinder (C/C++, Pico) [Project Link](#)

### **IBM/Globalfoundries 2008 - 2021**

Senior Analog Circuit Designer, Software Team Lead,  
Product Development and Characterization, Software Development in C/C++, Python, Lisp,  
Semiconductor Modeling, Customer Reference Designs,  
Development and Implemented of STDF Compliant API,  
RF Transceiver Antenna Switch Controller App Note [Link](#)

### **Linear Technology 2002 - 2008**

Senior Analog Circuit Designer, Interface Products, Field Fail Analysis Correction,  
Designed First Commercial RS485 Transceiver with Integrated Termination [Article Link](#)

### **Champlain College 2012 - 2014**

Adjunct Professor, Unix Systems Programming, Collaborative FOSS Software,  
STEM Tutoring

## EDUCATION

**Michigan Technological University**, Houghton, MI USA  
BSEE Microelectronics and Control Systems

### **National Technological University**, USA

VLSI Design (UMN), Analog Circuits (MIT), Computer Graphics (UMASS),  
Complex Variables (Vassar), Semiconductor Device Physics (Syracuse)

Thank you for your time. References available upon request