

# BRINDYN E. SCHULTZ

---

[www.brindynschultz.com](http://www.brindynschultz.com) • 815-302-3238 • [contact@brindynschultz.com](mailto:contact@brindynschultz.com) • Chicago, IL

---

## WHY ELECTRICAL ENGINEERING?

---

My childhood curiosity sparked a passion for engineering. Exploring the inner workings of toys led me to delve into physics and chemistry in high school. This drive to understand the world led me to pursue a university education, where I engaged in ambitious projects spanning electrical engineering, physics, chemistry, mathematics, and computer science.

## SUMMARY OF TECHNICAL QUALIFICATIONS

---

### **APPLICATIONS:**

- MATLAB, Octave, KiCad, AutoCAD, Vivado, Google Workspace, Visual Studio Code, GitHub, Microsoft Azure, Amazon AWS, UTM, Virtualbox

### **HARDWARE:**

- Power Electronics, Printed Circuit Boards, Raspberry Pi, Arduino, Programmable Logic Controllers, Computer Numerical Control Mills and Lathes, 3D Printers

### **COMPUTER LANGUAGES:**

- *Software:* C, C++, CNC G/M Code, Python, HTML, CSS, JavaScript
- *Hardware:* VHDL, Verilog, ARMv8, x86

### **SPOKEN LANGUAGES:**

- English-Fluent (Native), Spanish-Fluent (Second Language)

### **PROFICIENCIES:**

- Electric Circuits, Electronic Design, Signal Processing, Control Systems Design, Power Systems, Manufacturing, Physics, Chemistry, Semiconductor Design, Energy Generation, Automation, Field-Programmable Gate Array Devices, Precision Metrology

## EDUCATION

---

<b>Bachelor of Science in Electrical &amp; Computer Engineering</b> <b>Minor in Mathematics</b> Lewis University, Romeoville, IL	Expected: May 2024
----------------------------------------------------------------------------------------------------------------------------------------	--------------------

<b>Bachelor of Science in Computer Science</b> Lewis University, Romeoville, IL	Expected: May 2024
------------------------------------------------------------------------------------	--------------------

## WORK EXPERIENCE

---

<b>Nanomaterials Researcher</b> Kissel Lab, Romeoville, IL	Part-time: October 2023 - Present
---------------------------------------------------------------	-----------------------------------

- Collaborated with a team of chemistry researchers to discover a reliable, low-cost method for producing hydrogen gas. Utilized my physics knowledge to create an equipment setup for measuring low volumes of gases with high accuracy. Presented regularly on the research, and contributed to two official ACS research papers.

<b>CNC Vertical Mill Machinist</b> <b>CNC Machinist Trainee</b> Walco Tool & Engineering, Romeoville, IL	Full-time: August 2023 - Present Full-time: January 2023 - August 2023
----------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------

- Coordinated with other machinists to manufacture parts for a variety of industries with an emphasis on quality. Operated workshop equipment regularly and performed daily preventative maintenance. Consulted skilled manufacturing engineers and project engineers to optimize workshop efficiency.

**Engineering Assistant at Lewis University**  
Lewis University, Romeoville, IL

Part-time: November 2021 - January 2023

- Upgraded a lab's inventory system by implementing a mobile app with an easy-to-use check-in and check-out system. Integrated RFID in the lab for larger equipment. Developed a program for the ECE department to auto-populate fields of a PDF. Created and benchmarked instructional labs for use in freshman and sophomore level undergraduate ECE classes.

## **NOTABLE PROJECTS**

---

### ***DYNAMIC ALL-ELECTRIC VEHICLE WITH INTELLIGENT DEVICES (D.A.V.I.D):***

- *Electrical Engineering Senior Capstone*
- Engineered an electric go-kart from a salvaged lawnmower, thus showcasing our ingenuity in sustainable transportation. We designed the vehicle from scratch, incorporated an advanced object-detection system for automatic brake activation, which enhanced safety and efficiency.

### ***SOLAR WATER ELECTROLYSIS RESEARCH:***

- Contributed to a groundbreaking chemistry research project focused on harnessing solar power for water electrolysis to produce hydrogen gas. Through experimentation and innovation, our team achieved success. My significant contribution to the project was the integration of a precision measuring device capable of accurately gauging small volumes of gas.

### ***VOICE-CONTROLLED VENDING MACHINE:***

- Motivated to address the need for contactless interactions during the COVID-19 pandemic, I invented a voice-activated vending machine. This project showcased my technical skills, as well as, my ability to innovate in response to real-world challenges.

### ***PIP-1 COMPUTER IN MINECRAFT:***

- In my computer architecture course, I explored the theoretical PIP-1 computer. As a personal project, I recreated it in Minecraft, documented the process in a YouTube video and presented it in class. This endeavor deepened my understanding of electronic systems and sparked engaging discussions among classmates.

### ***SPORTS PREDICTION IN EXCEL:***

- Leveraged my foundation in linear algebra, data science, and VBA programming, to develop a sports prediction interface tailored for forecasting NFL game outcomes. Originally aiming for a 60-65% prediction accuracy, expectations were surpassed by achieving an impressive 70% success rate on average.

## **ACTIVITIES**

---

- Lewis University IEEE Student Branch, 2021 – Present  
*Chair, 2022*  
*Vice Chair, 2021*  
*Member, 2021*
- Lewis University Society of Physics Students (SPS), 2021 – Present  
*Member, 2021*
- Lewis University Chess Club, 2021 – Present  
*Vice President, 2023*  
*President & Founder, 2021*