

## EDUCATION

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- **University of Illinois** Champaign, IL  
*Bachelor of Science Major in Computer Engineering; Minor in East Language and Culture* August 2024

## EXPERIENCE

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- **Antunes (C++)** Carol Stream, IL  
*Electrical Hardware Engineer* Mar 2025 - Present
  - **Hardware Design:** Develop, prototype, and optimize analog, digital, and microprocessor-based circuit boards using Altium Designer, MPLAB, and STM32Cube for products used in the food industry.
  - **Troubleshooting & Manufacturing Support:** Diagnose and resolve manufacturing product assembly and test procedure issues, ensuring seamless post-production support and product improvements.
  - **Testing & Compliance:** Conduct verification and validation testing, create test plans, and collaborate with engineering teams for new product development and compliance coordination.
- **Beckman Institute for Advanced Science and Technology** Urbana, IL  
*IT Support* Jun 2022 - May 2024
  - **Diagnostics:** Responded to user tickets and resolved hardware, software, and server-related issues for biomedical apparatus and researchers.
- **Illinois Space Tech Academy (JavaScript, HTML/CSS)** Champaign, IL  
*Web Developer* Jun 2022 - Aug 2022
  - **Website Development:** Led the creation of a responsive educational website centered around NASA's Artemis project, tailored for enthusiasts seeking to explore space technology.
  - **Interactive Quizzes:** Crafted interactive quizzes that enhanced user engagement and provided real-time feedback to participants.
- **Code Ninjas (JavaScript, HTML/CSS, Lua, Python)** Libertyville, IL  
*Coding Instructor* Sep 2018 - Jul 2019
  - **Leadership and Instruction:** Provided mentorship to students including foundational coding and robotics principles in an engaging and accessible manner.

## PROJECTS

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- **JargonJolt (C++, JavaScript, HTML/CSS, SQL):** Developed an ESP32-based portable flashcard language learning device utilizing a spaced repetition algorithm with integration between the Anki flashcard app.
- **Nixie Tube Clock (C, MPLAB X IDE):** Engineered a clock using PIC microprocessors and Microchip's Real-Time Clock to display the current time in a HH:MM:SS format.
- **FPGA Rhythm Game (SystemVerilog):** Created a rhythm game utilizing I2S audio SDRAM configurations.
- **Mosaic Generator from PNGs (C++):** Implemented code which uses k-d trees and nearest neighbor algorithms.
- **Youtube to Ascii Converter (Python):** Utilized OpenCV2 to convert videos into JavaScript ASCII animations.
- **Sound Controlled LEDs (C++, Arduino):** Used MSGEQ7 graphic equalizers to pulse lights in time with music played through an audio-in channel. Colors change according to the frequencies of the audio data.

## SKILLS

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- **Programming & Development:** C, C++, Python, SQL, Lua, Java, JavaScript, HTML/CSS, React, Node.js, Git
- **Software Tools & Applications:** Altium, MPLAB, STM32Cube, Solidworks, Quartus, Cadence, KiCad
- **Multilingual Communication:** Spanish, Japanese

## RELEVANT COURSEWORK

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- **Relevant Courses:** Computer Security, Applied Parallel Programming, Artificial Intelligence, Analog IC Design, Digital Systems Laboratory, Digital Signal Processing, Senior Design Project Laboratory