

# Henry Silva

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**Portfolio:** henrysilva.xyz/p.html  
**Github:** github.com/Lazloian

## Education

**Purdue University**, West Lafayette, IN  
Bachelor of Science, Computer Engineering

December 2023  
GPA: 3.96 / 4.00

## Technical Skills

C, Python, Bash, Altium, Linux, Microsoft Office Suite, L<sup>A</sup>T<sub>E</sub>X, Git, Makefile, MATLAB, Android Studio

## Work Experience

**Embedded Systems Engineer**, Wavelogix, Inc. August 2021 - Present

- Developed hardware and firmware for an industrial data logger that utilizes both Bluetooth and LTE communication
- Worked with a small, multidisciplinary team to bring a product from concept to market-ready in just over 11 months
- Made design decisions while communicating cost and manufacturing implications to rest of team
- Presented market disrupting product to potential investors and customers
- Conducted in-field testing while gathering customer feedback on product user experience

**Undergraduate Researcher**, Purdue Sustainable Materials & Renewable Technology Lab October 2020 - July 2021

- Designed and conducted experiments to successfully determine the suitability of an integrated circuit to measure the impedance of concrete
- Developed a sensor platform prototype to measure the impedance of concrete and log data over a period of 2 days
- Produced weekly presentations to communicate project progress and future plans to head researcher

**Technical Writer**, Ecos Group June 2020 - December 2020

- Edited online technical training documentation and video to increase its quality and accessibility
- Cooperated with company contractors to determine suitability of training materials to improve trainee experience

## Relevant Experience

**Team Member**, Purdue Space Program - NASA Student Launch August 2020 - March 2021

- Contributed to design process of a planetary lander that must deploy from a descending rocket at 1,000 ft. and take a panoramic photo of its surroundings upon landing
- Facilitated weekly design meetings to keep team on track and cover all topics specified by the project lead
- Composed documentation of potential design solutions for project proposal and preliminary design review to fulfill NASA's project deliverable requirements

**Project Lead**, Purdue Robomaster August 2019 - May 2020

- Designed and tested HUD system to display critical information on robot surroundings and ammunition to robot driver
- Assigned work for a team of 6 members to meet project milestone deadlines
- Familiarized new members on basics of PCB design by critiquing 4 example projects

## Projects

**Self-Guided Dart System** January 2020 - May 2020

- Collaborated with a multidisciplinary team of 5 to develop a 0.15 kg self-guided projectile
- Researched and tested custom built, light-weight magnetic actuators to modify the projectile's trajectory
- Presented solution at the Purdue Undergraduate Research Conference and received high scores on content and documentation

**Custom LED Controller** Summer 2020

- Developed LED controller based on the ESP32 to simultaneously control over 300 neopixel LEDs and communicate via Bluetooth using FreeRTOS
- Integrated LED controller with Android application to create and upload animations via Bluetooth connection