

# Casey LeBlanc

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*Biological and Electrical Engineering student working toward wearable devices and brain-computer interfaces*

## EDUCATION

**Louisiana State University (LSU), Baton Rouge, LA**

**Expected May 2029**

*Bachelor of Science, Biological Engineering*

*Bachelor of Science, Electrical Engineering*

**GPA: 3.7 | Dean's List:** Spring 2026 | **Minor:** Robotics

**Related Coursework:** Quantitative Biology in Engineering, Microbiology, Statics; Spring 2027: Intro to ECE, Circuits I, Digital Logic

## EXPERIENCE

**Undergraduate Student Researcher**

**April 2026 – Present**

*Aquatic Germplasm and Genetic Resources Center, Baton Rouge, LA*

- Designed the Straw Multi Filler, a resin-printed device that assists in filling French straws, now in beta testing at Atlantic Aqua Farms for their *Crassostrea virginica* (oyster) operations
- Wrote the C++ and Python software for the TURTLE Logger, an open-source data logger that reads a thermocouple temperature sensor through an Arduino microcontroller and records the time to reach -80 °C, so users can monitor a sample's freezing rate and know when it is done
- Diagnosed the CryoCan's inconsistent cooling across different filament types, working from the cryogenic freezing problems reported by the Ambystoma Genetic Stock Center
- Designed and 3D printed the tool inserts for the Zebrafish Kit used by the Zebrafish International Resource Center (ZIRC), built around ZIRC's priorities
- Maintain and repair the lab's 10 Phrozen and Nexa3D resin printers and prototype with FFF, SLA, and SLS printing
- Produced cryoprotectant solutions for different aquatic species and performed husbandry for species such as axolotls

**Community Playground Project Design Engineer**

**September 2026 – Present**

*Louisiana State University, Baton Rouge, LA*

- Designed Ferriday Elementary's playground in Autodesk Fusion, modeling the equipment and producing the 3D render for the school's design presentation
- Designed a playground for Labadieville Elementary, now refining it with the design team

**Louisiana Collegiate Design Competition (LCDC) Team Leader**

**February 2026**

*Louisiana State University, Baton Rouge, LA*

- Led a team of 6 students in a hands-on engineering design competition hosted by the LSU College of Engineering
- Designed, built, and tested a bridge, a small car, and a plane from craft materials within the competition time limit; our bridge was the best of the competition

**Help Desk Employee**

**May 2024 – May 2025**

*Central High School, Baton Rouge, LA*

- Instructed and led students in repairing and cataloguing over 500 Chromebooks
- Repaired and maintained the school's electronics, including Chromebooks, printers, and projectors, and managed multiple Ender 3 S1 3D printers for student print jobs
- Created step-by-step guides for other Help Desk members on tasks such as ordering parts and filing and sorting Chromebooks

**Barista**

**June 2023 – April 2024**

*CC's Central, Baton Rouge, LA*

## PROJECTS

**LSU Course Planner** (JavaScript, HTML) | [caseyleblanc.dev/planner](http://caseyleblanc.dev/planner)

**September 2026 – October 2026**

- Extended Dr. Bruno Rego's open-source Biological Engineering course planner: built the course catalog and degree audit, and added support for double majors and minors

## SKILLS

**Programming:** C++, Python, MATLAB, JavaScript, HTML, CSS

**Hardware:** Arduino microcontrollers (embedded C++), thermocouple sensors and data acquisition, multimeter, additive manufacturing (FFF, SLA, SLS)

**Software:** Autodesk Fusion, Autodesk Inventor, Microsoft Excel

**Certifications:** Autodesk Certified User: Inventor; CompTIA IT Fundamentals+

## ACTIVITIES

Student Peer Mentors, Biological Engineering Student Organization