

CONRADO PEÑA LEMES

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EDUCATION:

Bachelor of Arts, Computer Science and Psychology

Carleton College

June 2027

Northfield, MN, USA

- Relevant Coursework: Calculus I, Data Structures, Software Design, Database Systems, Math of CS, Computer Systems, Human Computer Interaction, Programming Languages, Principles of Psychology, Learning and Memory, Cross-Cultural Psychology, Measurement and Data Analysis in Psychology

EXPERIENCE:

Student Research Partner – Autonomous Underwater Vehicle

Carleton College,

March 2025-August 2025

Northfield, MN, USA

- Worked on hardware for the creation of a low-cost Automated Underwater Vehicle (or AUV)
- Researched and applied a way to connect an ethernet cable between the AUV and laptop
- Designed 3 different 3D printable modules with Fusion360 to keep everything connected whilst inside the casing, to prevent water leakages
- Worked on infrastructure to connect a Raspberry Pi to a Jetson Orin NX

Academic Support Student Assistant

Carleton College,

August 2024-Present

Northfield, MN, USA

- Created a machine learning classifier (93% precision) using SLEAP software to track fly grooming behavior
- Worked on a machine learning tracker to analyze rat mating behavior, using JAABA achieving at departure time a precision of 68.9%
- Wrote a 15 page documentation that kept track of requirements and equipment used the projects until the time of my departure from them

CLASS PROJECTS AND PERSONAL PROJECTS:

Class Project: Pictograpp

Instituto Tecnológico Superior de Paysandú,

March 2022-December 2022

Paysandú, UY

- Created a mobile application (1200 lines of code), using Xamarin and C#, to help non-verbal people using 100 pictograms that say what is portrayed when clicked
- Won 1st place in the Uruguayan National Science fair, achieving 4/4 special mentions in the process, while also leading a team of 4 programmers
- Had discussions with professionals in the area, including 3 teachers, 7 programmers, 1 educational psychologist, and 1 psychologist

Varied personal projects

Independent work,

2018-Present

Multiple Locations

- Created an auto-updating calendar using a Raspberry Pi, that connects to my phone, using a bash script to refresh the Google Calendar website every couple of minutes as well as turn off the screen when not in use
- Updated the Carleton College Makerspace Carl-o-gotchi (project 0046) to include the use of a 700mAH Lithium battery, giving it a battery life of 27 hours
- Currently working on the creation of a personal website, through HTML, Bootstrap, and SQL

TECHNICAL SKILLS AND LANGUAGES:

- **Technical:** SQL (Proficient), JAVA (Proficient), Python (Proficient), C# (Proficient), C (Proficient), C++ (Proficient), Bash (Basic), Xamarin, HTML (Proficient), CSS (Proficient), JavaScript (Basic), Bootstrap (Proficient), x86Assembly (Basic), SLEAP (Proficient), Git (Proficient), Adobe Bridge (Advanced), Adobe Photoshop (Proficient), Fusion360 and Autodesk storage (Proficient), Arduino (Basic), Raspberry Pi (Proficient), TrueNAS (Basic)
- **Language:** English (Fluent), Spanish (Native), Portuguese (Basic)