# **Pedro da Rocha Borin**

+1 (605) 728-4467 | [pdarochaborin21@ole.augie.edu](mailto:pdarochaborin21@ole.augie.edu)

**Objective**

Motivated Biology and Bioinformatics student eager to apply data science skills in Python and R to analyze molecular datasets such as RNA-seq and DNA-seq. Passionate about contributing to innovative research and advancing scientific knowledge, I seek to bring my analytical expertise and enthusiasm to a dynamic team, supporting impactful projects and organizational goals.

**Education**

Augustana University, Sioux Falls, SD Expected Graduation: May 2025

* Bachelor of Arts, Biology & Bioinformatics; (Genetic Counseling emphasis)
* Minor: Mathematics

***Relevant Coursework:*** *Genomics & Transcriptomics,**Genetics, Molecular Bio, Cellular Biology, Biostatistics, Biochemistry, Organic Chemistry, Intermediate Data Science, Calculus I & II, Statistics Using R, Applied Regression, Health Communication, and Ethics in America.*

**Laboratory Skills**

*Molecular Techniques*: PCR | qPCR | RNA-seq | Molecular Cloning | Western-blot | ELIZA | Spectrometry| SDS-PAGE| DNA extraction| SDS-PAGE| Pipetting.

*Cellular Techniques*: Centrifugation |Protein Purification | Cell Culturing (MCF-7)| Flow Cytometry| Microscopy| Spectrometry.

Bioinformatics Techniques: RStudio (2 years)| Python ( 4 months) | Bash (3 months)| Machine Learning Sklearn|Data management & visualization| Remote computing in Linux| Fastqc| BLAST| Graphpad.

**Experiences**

*Research Assistant* June 2024-Current

Augustana University, Sioux Falls, SD

* Contribute to data collection in Dr. Olson-Manning's lab, focusing on research into biochemical pathway evolution in milkweed plant hybridization, with a primary emphasis on data analysis and RNA-seq.
* Perform de novo RNA-seq assembly using Trinity to analyze transcriptomes without a reference genome, aiding in gene expression studies.
* Extract DNA from soil and root samples to support microbiome analysis, following protocols to avoid cross-contamination and ensure high-quality samples for downstream sequencing and accurate data interpretation.
* Participate in poster presentations and scientific conventions to share findings and engage with the research community.

*Educational Outreach and Mentorship* June 2023 – Current

Augustana University, Sioux Falls, SD

* Served on student panels and led campus tours at Brandon Valley High School, helping sophomores connect with AU campus and fostering meaningful community engagement.
* Mentored students and teachers from Wuhan Foreign Language School (China) during a two-week visit, providing insight into American university life and promoting an inclusive campus environment.
* Mentored high school students from St. Paul’s Catholic School during a month-long American culture immersion, providing guidance, support, and insights from an international student perspective while addressing questions and emergencies.
* Guided middle school students through laboratory experiments at Augustana STEM Camp, teaching scientific methods and fostering curiosity in STEM fields.

*Laboratory Assistant* May 2023-Oct 2024

Sanford Health Blood Bank, Sioux Falls, SD

* Prepare packed red blood cells, fresh frozen plasma, platelet concentrates, and cryoprecipitate following AABB and FDA standards.
* Utilize new technology such as blood banking procedures change, understanding the use of the blood bank instrumentation and equipment. Demonstrate proficiency in the component laboratory.

**Leadership & Volunteer Experience**

*Vice President, Pre-Genetic Counseling Club*  February 2024-Current

Augustana University, Sioux Falls, SD

* Co-founded the Pre-Genetic Counseling Club, hosting monthly events for AU students.
* Promote interest in genetics and genetic counseling through networking with certified counselors and graduate students.
* Assist undergraduates in exploring graduate school paths and preparing application materials.

*ACE Ambassador (150+ hours)* 2022-Current

Augustana Cultural Exchange (ACE) Program, Sioux Falls, SD

* Work with peer collaborators to guide small groups of new international students through a week-long new freshman international student orientation.
* Advise new international students on facing college challenges and acclimating to life and school in the United States.

**Extracurricular & Sports Achievements**

* 2021-2022 NCAA National DII Qualifier
* 2021-2022 Great Lakes Intercollegiate Athletic Conference Champion, 200y fly
* 2022 International Superstar, Ole Espy Awards
* 2023 IPO ACE Ambassador Honors - “Hard on his sleeves