

# SAIL-USA 2025 Rolling Application

Last Updated: 2025-08-12

## Description

### *Title and Work*

The Undergraduate Student Analyst (USA) position at the University of North Carolina at Chapel Hill's Sports Analysis and Intelligence Laboratory (SAIL) offers students the opportunity to contribute directly to the university's sports analytics initiatives. Working as part of a collaborative team, USAs will apply mathematical and statistical techniques to uncover insights into athletic performance, analyzing large datasets from games and practices. In addition to conducting technical analyses, USAs will translate complex findings into clear, accessible information for coaches, administrators, and other stakeholders both within and beyond the university.

This role combines teamwork with independent problem-solving: USAs will collaborate with graduate students and faculty advisors from multiple departments to explore big-picture strategies while also completing individual or small-group tasks such as programming R scripts for data computation. The position requires a commitment of 3–5 hours per week, including a one-hour weekly group meeting and a one-hour small-group work session. While the work can be challenging, it promises invaluable professional and academic growth, equipping students with skills that will serve them well in both their studies and future careers.

### *Requirements*

- Must be a currently enrolled freshman, sophomore, or junior at The University of North Carolina at Chapel Hill
- Must be familiar with Microsoft Excel and R or Python
- Must be proficient in elementary statistical methods
- Must have taken a course in linear regression
- Must be willing to work with others to solve problems
- Must be able to communicate technical concepts to people unfamiliar with such concepts
- Must be willing to put in a minimum of five hours of work per week throughout the school year · Must be willing to complete supplementary work during the summer

### *Relevant Skills*

- Familiarity with SQL and a data visualization tool such as Tableau, PowerBI, or R Shiny
- Proficiency in the application of machine learning models and methods
- Familiarity with the sports strategy, game theory, and probability

### *Timeline*

We plan on reviewing applications on the around the 15th of each month and responding to applications within a month. Please wait until at least two weeks after submitting your materials to email us regarding your application.

## Instructions

Please answer each question in the margins (i.e. do not use a print function). Feel free to include code, but make sure it is hidden within the final product. You need to submit this file as a PDF. You can either knit the file directly to a PDF within R, or you may knit to an HTML and then save the file as a PDF by printing the page to a PDF. We suggest that you include the majority of your code in a separate file. Please include both your code and application files in a single ZIP file when you submit your materials to Abigail Mabe (amabe@unc.edu). Please include “SAIL Application 2025” in the subject line.

### *Artificial Intelligence (AI) Use Policy*

As part of the application process and any future work with the Sports Analysis and Intelligence Laboratory (SAIL) at UNC-Chapel Hill, you are expected to follow University guidelines on the responsible use of Artificial Intelligence (AI) tools:

- AI is a support tool, not a substitute. You may use AI to brainstorm ideas, explore research topics, or analyze problems, but you are responsible for determining what is appropriate, accurate, and relevant.
- Engage critically and responsibly. Carefully review AI-generated outputs for potential biases, limitations, inaccuracies, false information, and ethical concerns. Never submit AI-generated content without verification, and do not enter personal or confidential data into AI systems.
- Be transparent about AI use. If you use AI for any part of your work, you must clearly declare, explain, and cite that usage, following applicable standards (APA, MLA, course, or project guidelines).
- You are fully responsible for your work. Regardless of AI use, you are accountable for the quality, accuracy, and integrity of anything you submit.
- Follow the UNC Code of Conduct at all times.

By submitting this application, you acknowledge that you have read, understood, and agree to follow this AI Use Policy if selected for the position.

## Application

### *Personal Information*

1. First and Last Name (First Last)
2. PID
3. UNC Email Address
4. Expected Graduation Month-Year
5. Major(s)
6. Minor(s)

### *Basic Academic Questions*

7. Please check which of the following courses you've taken. If you have taken a similar course to any of these or have self-taught the material, make a note of that below. If you have taken other courses (such as physics course) that you feel are relevant, please list them in the notes along with a short description.

#### Course List

- ☐ STOR 155 or equivalent
- ☐ STOR 320 or equivalent
- ☐ STOR 435 or equivalent
- ☐ STOR 445 or equivalent
- ☐ STOR 455 or equivalent

#### Notes:

8. Please check which of the following programming languages or platforms you are comfortable using.

#### Language List

- ☐ R
- ☐ Python
- ☐ SQL
- ☐ Other: (note them here)

9. Please list any experiences you have that you feel are relevant to this application, followed by a one or two sentence description.

### *Short Answer Questions*

10. Please explain, in one or two paragraphs, why you would like to be an Undergraduate Student Analyst in The University of North Carolina at Chapel Hill Sports Analysis Intelligence Laboratory.
11. Please share, in one or two paragraphs, how you feel you may contribute to both the sports and research communities here at the university, as an Undergraduate Student Analyst in The University of North Carolina at Chapel Hill Sports Analysis Intelligence Laboratory. Please be specific, if possible.

12. Please choose a scholarly article from the Journal of Quantitative Analysis in Sports related to sports analytics and summarize the article in a 250-word letter to a coach. Remember to cite the name of the authors and the journal in a formal MLA citation.

*Essay-Analysis*

13. Please indicate a sport in which you would like to conduct applied research through SAIL. Then, prepare a professional, research-style written analysis (maximum 1,500 words) on a topic within that sport that answers a clear research question of your choice.

Your submission should:

- Be written in formal, professional style, similar to an academic paper or industry report.
- Clearly state and describe your research question, hypothesis, methodology, results, and conclusions.
- Limit tables and figures to a maximum of five (words within tables/figures do not count toward the word limit).
- Focus on communicating your thinking, interpretation, and conclusions in writing — not just presenting code or raw output.

You must perform your analysis using R or Python (you may also use other software or programming languages in addition). The code you write is separate from your essay but should be well-documented and provided with the application submission. Do not embed full code listings in the essay itself; instead, focus on explaining your methods and findings in clear, professional prose.