

September 29, 2025

Hiring Manager
Mercedes-AMG PETRONAS Formula One Team
Brackley, UK

Dear Hiring Manager,

My name is **Paulo Henrique Brito de Souza**. I am a **Undergraduate research scholar at UFRGS**, currently working at the **Laboratory of Physical Metallurgy (LAMEF)**. I am writing to express my strong interest in the **Race Strategy and Race Engineering — Industrial Placement at Mercedes-AMG PETRONAS Formula One Team**.

Throughout my academic journey, I have worked extensively with **numerical simulation** and **prototype development**, building a rigorous foundation in project design, data analysis, numerical simulation and coding. My most complex project that I have ever worked, and am currently working, is the development of a FEM software from scratch in hardware programming language such as C++, with the goal of the extensive control under the math logic of functions, precision and performance. It can be the summation of all my skills and represent my professional personality, I never give up on my dreams.

Since I was a kid, my curiosity led to a passion for complex machines and an incomprehensible passion for cars. The Formula SAE program was responsible for bringing me closer to the dream of working in automotive development, and the years of experience in this project brought me both technical and social skills that I use in everyday work. Since I was in high school, I wanted to work in CAD / CAE. Although I did not know the basics, my curiosity led me to play with the many available software for students. It was in college that my lack of knowledge was fulfilled and the demand for those abilities appeared. The extensive use of CAD came from my years of Formula SAE, and the use and understanding of CAE was provided by my work in LAMEF, where I had the opportunity to improve the use of commercial software and the development of a solver code from the ground up. With the passing of the years, my passion for this field has only grown, and what was once a dream is now a professional goal. The intersection of my experiences at the laboratory and at the racetrack, fired me the desire for working in high performance.

Sincerely,

Paulo Henrique Brito de Souza

Paulo Henrique Brito de Souza

Mechanical Engineering Undergraduate — Laboratório de Metalurgia Física (LAMEF)

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