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Siegfried H. Zerweckh  
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Dear Siegfried,

This letter is in support of Roberto Martinez's application for Makani Power.

I had the pleasure of supervising Roberto for a 6month internship at Renault Sport Racing Formula 1 team in Oxfordshire, England. The internship position is centred around the development of our Particle Image Velocimetry (PIV) and CFD capabilities but also requires involvement in all aspects of the aerodynamic development of our racing cars. Renault Sport Racing prides itself in having one of the most sophisticated and innovative aerodynamic capabilities anywhere in the world.

During Roberto's time with us he demonstrated his innate capability as an aerodynamicist. He worked closely with wind tunnel technicians to acquire reliable PIV data. One key aspect of his work was PIV processing algorithm development, coding new macros which helped to fully automate our PIV post-processing capability. This work led to a fourfold reduction in PIV data turnaround time.

Modern Formula 1 car airflows are dominated by complex vortex interactions. Roberto worked alongside our CFD methodology engineers comparing PIV and CFD data to help us not only gain a better physical understanding of the flowfield but to improve correlation between our analysis methods. This work required a very deep understanding of flowfield analysis approaches including both local and non-local coherent structure detection. Roberto's contributions were instrumental in the development and optimisation of both the CFD and PIV workflows. Roberto complemented this practical and theoretical work with excellent organisation, reporting and presentation of data and results.

Under the umbrella of our internship program, Roberto was a truly outstanding addition to our team. He consistently delivered under the tight time constraints of the demanding and highly competitive world of Formula 1 aerodynamics.

On a personal note, Roberto was a fantastic colleague. In a previous role at the University of Cambridge I was responsible for academic supervision of many truly excellent students but I would be remiss in my duty if I did not state that Roberto is one of the most academically outstanding students I have ever worked with.

For the reasons above, I highly recommend Roberto for Makani Power. Please do not hesitate to contact me directly at [Robbie.Stevens@uk.renaultsportracing.com](mailto:Robbie.Stevens@uk.renaultsportracing.com) if you require further information.

Yours sincerely,

Robbie Stevens

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