

EMBOSTORY: Carlo Pascucci

At Embotech...

we are about 30 individuals. We carry 10 nationalities & half of our last names are likely to twist your tongue. We have a team full of bright minds & full of diverse characters.

Meet us in our new sequence “EMBOSTORIES”, featuring one employee each month, providing a little insight into our company. Starting now in June with the one-of-a-kind [@Carlo Pascucci](#)



Q: How long have you been working at Embotech?

A: Since November 2017.

Q: What did you do before working at Embotech?

A: I was a postdoc at the Aeronautics & Astronautics Department of the University of Washington in Seattle.

Q: 3 words you would use to describe Embotech?

A: fresh, proactive, agile

Q: How is Embotech helping your career development?

A: I'm learning how to implement highly reliable software to meet strict safety requirements while pushing the boundaries of the state of the art of guidance and control algorithms for space applications.

Q: What is your current position and what does it mean?

A: At Embotech I'm working as a guidance and control engineer. I design and develop guidance and control algorithms for space applications. This process goes from the algorithm design to the software validation and verification on embedded hardware. Obviously, it also involves a lot of simulations to make sure the performance of our G&C methods meet the requirements.

Q: Could you give us a quick description of what your typical workday looks like?

A: After checking the e-mails I start working on the open issues. This may involve implementing new components or fixing problems with the existing ones. I work mainly with Matlab/Simulink to design and simulate the behavior of the targeted vehicle with our G&C algorithms. Occasionally, I work with C code to interface with the embedded platforms and 3D modeling and real-time rendering software to better visualize how the simulated vehicle flies with our software on board. Another very important aspect are the meetings with the team members working on the same project. We discuss the strategy and brainstorm on how to solve the technical challenges that arise along the way.

Q: What do you like the most about your job?

A: The need to be creative to find solutions to problems that could not be solved with traditional techniques plus the potential to make a tangible contribution to technology.

Q: What is most challenging part of your job?

A: By definition, when implementing something new there is no predefined way on how to do that. This gives me a lot of freedom. At the same time, it also means great responsibility as I need to constantly ask myself: are you sure this is the best way?

Q: What has been your favorite project since working at Embotech and why?

A: So far, I've been working on different phases of the ESA-FLPP project. I'm about to start the next stage that involves flight testing our software on a jet powered vertical takeoff and landing aircraft. This is going to be very exciting as I'll get to see in real life if all those hours of development and simulation will pay off or if we will have to go back to the drawing board.

Q: If you could have any other job just for the fun of one day, what would it be?

A: I grew up watching science fiction movies, so I'll go with fly in space and exploring other planets. With the current technology space flight and exploration, it's still quite a bit uncomfortable for humans, but I'd definitely be ok for one day!

Q: Let's jump to the last question: Something your colleagues at Embotech certainly don't know about you yet?

A: As a child I really wanted to have a boomerang. I was extremely fascinated by the fact that you could throw something in the air and that this thing would fly back to you changing its course on its own. At that time, it seemed like magic to me. However, I couldn't find one at any shops in my hometown, and no one seemed to know much about it and how it worked. So, I called the Australian embassy to ask if they could send one to me. They did not. Instead, they have been kind enough to send me a lot of promotional and touristic information about Australia.