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Having an ardent interest in computer vision I feel compelled to pursue this job opportunity at Vicon.

Usually, when I am working on a project I become extremely passionate and channel a lot of energy into it. If I had to choose, I would say that my two greatest interests are Programming and Robotics Control, actually I believe the former to be a form of art.

Moreover, since undertaking my Masters, I have greatly enjoyed being able to model the evolution of dynamic systems through programming. The topic of my master thesis was **SLAM**.<sup>1</sup> I developed a system for autonomous navigation which performs 3D LIDAR Odometry and Tracking on high order features extracted from the point cloud.

Since then I have cultivated even more interest in **autonomous navigation** even when that hasn't been the main focus of my job: I was employed in INRIA as a robotics engineer where I developed a system for teleoperation. During this experience I learned a lot because I was responsible for the design and implementation of the entire pipeline software-side:

- dynamic simulation and control starting from URDF description of robots.
- GUI prototyping using an open-source C++ library.
- containerization and automation of the development environment.
- handling communication between modules with ROS.

I've been working at Kudan in Bristol for the past two years. It's a computer vision company that specializes in SLAM solutions using LiDAR and camera sensors. My role involves developing new features for the C++ LiDAR SLAM library and checking out how we could use the latest academic research in our work. These experiences have helped me become an expert in C++.

Finally, I want to mention an individual academic project that I completed during my masters: A **convolutional neural-net** built with **Spiking Neurons** in Python using **Tensorflow**, that resembles the behavior of neurons inside the biological brain.

I am seeking a role involving opportunities that would allow me to expand my creativity. Thus, I would greatly appreciate your review of my resume and outlined credentials. I believe that I would be a valuable addition to the Vicon team.

At your convenience, I am available for further discussion. I look forward to your response.

Sincerely,  
Edoardo Ghini

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<sup>1</sup>Position tracking in 3D scenes using high order primitives.    links to [code](#) and [thesis](#).