Dr. Guillaume de Chambrier
Avenue de la gare 3
1020 Renens
(+41) 79 822 76 35

October 19, 2016

Ocado Limited
Freepost 13498
PO BOX 3 62
Hatfield AL9 7BR

Dear Mrs./Mr.,

I am a Swiss-British national and I have recently obtained my Ph.D doctorate in robotics from EPFL in the LASA robotics lab which happens to also be a partner in the SecondHands European project. I was made aware of your vacancy from the robotics-worldwide message group.

I am an expert in Machine Learning (ML), mathematical modelling and robotics. I have been teaching two machine learning classes at EPFL for both MSc and Ph.Ds. I have supervised students and published novel machine learning methods in reinforcement learning and non-parametric Bayesian state space estimation with an emphasis on robotic applications. I am continuously implementing, testing and deploying ML methods as it is also a hobby of mine (see non-parametric regression and E-PCA for examples ML software packages I developed).

The essence of my Ph.D thesis lies at the heart of acting under uncertainty which will be a valuable skill to contribute to the SecondHands project and to Ocado in general. Throughout my Ph.D I have become familiar with belief-space planning techniques and I have developed and published robotic control algorithms which consider state uncertainty during task execution. This also led me to become an expert software developer for robotic systems. For instance I developed a ROS package for an ATI force-torque sensor and a KUKA LWR robot (see kuka-lwr-ros). I am an expert in ROS, ros_control, moveit and I am a daily C++/Python programmer working predominately with Linux operation systems.

I used these platforms (currently being used by SecondHands members, you may contact José Ramón Medina who is currently working on the SecondHands project and is using the software I developed) to teach the KUKA, in a programming by demonstration framework, to search for and connect an electric power socket without using any visual information (see Reinforcement learning in belief space). I have also experience with other robotic platforms, besides the KUKA LWR, such as Barrett WAM, Barrett Hand and Allegro Hand. In terms of libraries, I have worked with and added a new distance metric to the KDTree of point cloud library.

Beyond SecondHands, I am looking to be part of an ambitious robotic company looking to acquire a global presence. The increasing investment by Ocado in robotic systems whilst recognising the importance of human-robot collaboration makes it an ideal environment for me to contribute to. I am looking forward to the possibility of being part of Ocado in which I seek to contribute to the development and increase of its robotic section.

I will be moving to London at the start of next year, but I will be at your disposition at any time for an interview. You can also visit my personal web-page: chambrierg.com

Sincerely yours,

Guillaume de Chambrier