



Thunderbot's Software Team

Purpose:

We're creating a humanoid robot! UBC's first humanoid is being created here @home. If you want to be apart of a goal that will make history, read on.

Our team is centered around 3 important things

1. Learning
2. Funz0rs
3. Winning!



How do we learn? The software architecture is cutting edge. It has been done only rarely and it is not common knowledge. The algorithms we implement are state-of-the art. The mathematics and programming knowledge required will build you, and your resume up.

Fun. We meet Mondays, Wednesdays, and Thursdays 3-6PM in the EDC and our general team meetings are 11-4PM on Saturdays. Our goal is to build a community of friends that loves to hang out, program, hack, eat good food, and make a difference while working on our degrees.

Win! There is a competition every year called RoboCup, and in 2014 it is in Brazil. Our team will be competing in the @home competition along side our sister team Thunderbots FC (Football playing robots) whom is competing in the SSL league.

What skills are we looking for?

Motivated individuals. Charismatic people. There are lots of projects for you at the Thunderbot's Software team and most require C++ or Python knowledge to do them to completion. You will be working under your own supervision but with guidance from the team members who have been working on the project already.

For example: A Convolutional neural network learns the prominent features in a image dataset and learns the basis parts of objects. On the n-th layer, the network neurons represent single objects themselves. When activated, it tells us whether or not, lets say, a banana, or a car is present in an image or video stream.

Navigation. Work on giving our robot wheels. Help it avoid obstacles and plan paths. Using LIDARs, Cameras, Pointclouds and proximity sensors, you'll have to help us get Talos from A to B.

Speech Recognition. We have to be able to talk to the robot, and we need an engineer to do this task as well.

There are many more projects, please contact noobaca2@gmail.com (Devon Ash) for more details on how to join, meet up, or discuss your cool ideas.