FROM nvidia/cuda:8.0-devel-ubuntu16.04

MAINTAINER Yuki Iida <yuki.iida@tier4.jp>

ARG DEBIAN\_FRONTEND=noninteractive

RUN apt-get update && apt-get install --assume-yes apt-utils

# Develop

RUN apt-get update && apt-get install -y \

software-properties-common \

wget curl git cmake cmake-curses-gui \

libboost-all-dev \

libflann-dev \

libgsl0-dev \

libgoogle-perftools-dev \

libeigen3-dev

# Install some basic GUI and sound libs

RUN apt-get install -y \

xz-utils file locales dbus-x11 pulseaudio dmz-cursor-theme \

fonts-dejavu fonts-liberation hicolor-icon-theme \

libcanberra-gtk3-0 libcanberra-gtk-module libcanberra-gtk3-module \

libasound2 libgtk2.0-0 libdbus-glib-1-2 libxt6 libexif12 \

libgl1-mesa-glx libgl1-mesa-dri language-pack-en \

&& update-locale LANG=en\_US.UTF-8 LC\_MESSAGES=POSIX

# Intall some basic GUI tools

RUN apt-get install -y \

cmake-qt-gui \

gnome-terminal

# Intall ROS

RUN sh -c 'echo "deb http://packages.ros.org/ros/ubuntu $(lsb\_release -sc) main" > /etc/apt/sources.list.d/ros-latest.list'

RUN apt-key adv --keyserver hkp://ha.pool.sks-keyservers.net:80 --recv-key 421C365BD9FF1F717815A3895523BAEEB01FA116

RUN apt-get update && apt-get install -y \

ros-kinetic-desktop-full ros-kinetic-nmea-msgs \

ros-kinetic-nmea-navsat-driver ros-kinetic-sound-play \

ros-kinetic-jsk-visualization ros-kinetic-grid-map \

ros-kinetic-gps-common ros-kinetic-controller-manager \

ros-kinetic-ros-control ros-kinetic-ros-controllers \

ros-kinetic-gazebo-ros-control ros-kinetic-joystick-drivers \

libnlopt-dev freeglut3-dev qtbase5-dev libqt5opengl5-dev libssh2-1-dev \

libarmadillo-dev libpcap-dev gksu libgl1-mesa-dev libglew-dev python-wxgtk3.0

# Add basic user

ENV USERNAME autoware

ENV PULSE\_SERVER /run/pulse/native

RUN useradd -m $USERNAME && \

echo "$USERNAME:$USERNAME" | chpasswd && \

usermod --shell /bin/bash $USERNAME && \

usermod -aG sudo $USERNAME && \

echo "$USERNAME ALL=(ALL) NOPASSWD:ALL" >> /etc/sudoers.d/$USERNAME && \

chmod 0440 /etc/sudoers.d/$USERNAME && \

# Replace 1000 with your user/group id

usermod --uid 1000 $USERNAME && \

groupmod --gid 1000 $USERNAME

# Setup .bashrc for ROS

RUN echo "source /opt/ros/kinetic/setup.bash" >> /home/$USERNAME/.bashrc && \

#Fix for qt and X server errors

echo "export QT\_X11\_NO\_MITSHM=1" >> /home/$USERNAME/.bashrc && \

# cd to home on login

echo "cd" >> /home/$USERNAME/.bashrc

# Change user

USER autoware

RUN sudo rosdep init \

&& rosdep update \

&& echo "source /opt/ros/kinetic/setup.bash" >> ~/.bashrc

# Intall missing dependencies

RUN sudo apt-get install -y openni2-doc openni2-utils openni-doc openni-utils

RUN sudo apt-get install -y libopenni0 libopenni-sensor-pointclouds0 libopenni2-0 libopenni-sensor-pointclouds-dev

RUN sudo apt-get install -y libopenni2-dev libopenni-dev

# Install Autoware

RUN git clone https://github.com/CPFL/Autoware.git /home/$USERNAME/Autoware

RUN /bin/bash -c 'source /opt/ros/kinetic/setup.bash; cd /home/$USERNAME/Autoware/ros/src; catkin\_init\_workspace; cd ../; ./catkin\_make\_release'

RUN echo "source /home/$USERNAME/Autoware/ros/devel/setup.bash" >> /home/$USERNAME/.bashrc

# Setting

ENV LANG="en\_US.UTF-8"

RUN echo "export LANG=\"en\_US.UTF-8\"" >> /home/$USERNAME/.bashrc

# Install dev tools

RUN sudo apt-get -y install vim tmux

# Change Terminal Color

RUN gconftool-2 --set "/apps/gnome-terminal/profiles/Default/use\_theme\_background" --type bool false

RUN gconftool-2 --set "/apps/gnome-terminal/profiles/Default/use\_theme\_colors" --type bool false

RUN gconftool-2 --set "/apps/gnome-terminal/profiles/Default/background\_color" --type string "#000000"

# Default CMD

CMD ["/bin/bash"]