ANNA

MACHINE LEARNING ENGINEER

PROFESSIONAL SKILLS

Python

Git

C++

C

OOP

ML Algorithms

UML

Qt

Assembler RH850

TensorFlow

Keras

OpenCV

Caffe

PCL

Octave/Matlab

ROS

CUDA

EXPERIENCE

MACHINE LEARNING ENGINEER
December 2019 – Present

RESPONSIBILITIES:
- Implemented, refactored and optimized a fixed-point distributed ML framework (C++14)
- Designed and developed a code converter which translates TensorFlow 2.0 code into Etch script
- Suggested technical and functional improvements to add value to the product

ADAS/MACHINE LEARNING ENGINEER
October 2017 – November 2019

RESPONSIBILITIES:
- Image classification: continuous model improvement; model fine-tuning; analysis of failed cases; data preparation; additional tasks related to model dockerization, training pipeline and cloud deployment.
- Investigated different approaches for indoor and outdoor surface reconstruction (SLAM, VO). Re-searched Shape from Shading approach, conducted several experiments on generated and real-world datasets. Dataset mining and preprocessing tasks.
- ROS infrastructure setup and integration of custom modules. Troubleshooting during custom ROS packages builds. Worked with Move it! on robo-arm grasping tasks.
- Lidar point cloud visualization using PCL (ADAS).
- Developed driver assistance application with real-time face identification and head pose tracking functionality, worked on architectural concept, model integration and tuning, optimization tasks.
- Investigated spectral methods for image denoising and partial reconstruction.
- Research in field of object detection and tracking (YOLO, Faster-RCNN, Re3, RCN etc).
- Ported custom layers from older version of Caffe framework to newer.
- Developed a tool for car telemetry visualization and editing (ADAS, Qt).
- Architectural design and implementation of automotive software from scratch (Qt, C++)

ANNA

MACHINE LEARNING ENGINEER

ncube

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CUDA

EXPERIENCE

C++/QT/QML DEVELOPER
May 2016 – August 2017

RESPONSIBILITIES:
- Full cycle development of the new generation navigation software running on the car head unit.
- Developed rich and non-standard user interfaces based on Qt and multi-tier, client-server software architecture.

SOFTWARE ENGINEER
November 2014 – April 2016

RESPONSIBILITIES:
- Developed and integrated modules of real-time operation system (Microsar) for automotive production embedded module (aka ECU) in the vehicle environment (Green Hills Software, Renesas E1 debugger).
- Designed architectural concept of bootloader for ECU (UML) and implemented it from scratch.
- Developed client-server application for ECU software update; worked on custom application layer protocol for communication between Linux and Microsar.
- Integrated, configured and debugged low-level libraries (EEPROM emulation etc).
- Participated in successful release of HMI application for car media system (Linux, yocto, Qt).

EDUCATION

MSC IN APPLIED PHYSICS & MATHEMATICS

FOREIGN LANGUAGES SKILLS

ENGLISH LEVEL:
Upper intermediate
UKRAINIAN LEVEL:
Native
RUSSIAN LEVEL:
Fluent

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