Ajay Nallani

Austin, TX
-Email me on Indeed: http://www.indeed.com/r/Ajay-Nallani/7573e5eeef690b19

Over 6 years of Experience in building applications surrounding deep learning and computer vision in automotive industry. Proven success in building algorithms and predictive models for different interior sensing vehicles in modern vehicles. Passionate about solving real world problems using deep learning.
Graduate from
Purdue University

Work Experience

Research Engineer - Machine Learning for Computer

Vision Ford Motor Company - Austin, TX
August 2022 to Present

• Lead research and development of the state-of-the-art in real time low power
DNN based computer vision applications for vehicle interior monitoring including driver and occupants for both L2 requirements and enhancing customer experiences
• Developed an end-end workflow for integrating various aspects of ML based solution architecture in a full design life cycle that includes data definition/preparation/augmentation, model selection, robustness checks and model compression for deployment
• Developed new mathematical formulations and learning architectures while dealing with atypical/new problem statements and feature constraints
• Published internally and engaged in internal knowledge dissemination through guiding, mentoring, and seminars as well as through any Ford learning and development programs

Deep Learning Engineer

Aptiv PLC - Detroit, MI
January 2018 to July 2022

• Working in a global team to define and develop software for interior sensing features for the next generation automated driving and advanced vehicle HMI applications
• Lead the initiative of creating an ML runtime for various embedded platforms that has various ML accelerators, following automotive grade
• Products I build made it to the Consumer electronics show CES
• Built a simulation engine for data collection or in cabin scenarios. Worked on simulating human behavior as part of this and implemented various algorithms to track and simulate human behavior for the passengers.
Use case Features Developed
Driver Driver Distraction recognition, Drowsiness detection,
Analytics Sudden sickness, Driver Identification, Eye Gaze region of interest, Head tracking, Eye and Head tracking
Passenger Pose estimation, Activity recognition, Phone detection,
Analytics Smoking, clothing detection, segmentation

Project Engineer Intern

Siemens - Buffalo Grove, IL

June 2017 to December 2017

• Worked on 2 different projects, as a research intern and SharePoint administrator
• Worked on algorithms to replace occupancy sensor with already existing sensors in the room like temperature sensor and pressure sensors
• Successfully prototyped project. We were able to output not only presence of people but also number of people in the room

Education

Masters in Computer Info

Purdue University
August 2015 to May 2017

Bachelors in Electronics and Communication

SR Autonomous University
July 2011 to May 2015

Skills

- Deep learning C JS pytorch
  Computer Vision Electronics Python
  Robotics Embedded AI OpenVX
  Multi-view Geometry Robotics
  Sensor Fusion CUDA OpenCL
  Azure GCP Statistics
  Applied Mathematics Kafka
  PyData ecosystem spark Airflow
  System Design Unreal Engine Blender
  OpenGL OpenCV 3D Computer vision

Links

http://ajaynallani.com

https://www.linkedin.com/in/ajay-chandra-nallani