

AI SMART MOBILE WITH TENSORFLOW

Agenda

- Prepare models for battery-operated devices
- Execute models on Android and iOS platforms
- Deploy models on embedded systems like Raspberry Pi and microcontroller

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| Module 1: | (8 Hrs) |
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| Installation: Basic Requirements for Tensorflow, Configuring linux Environment, introduction to anaconda, Anaconda python installation, Cuda installation, Python - Distributions and IDEs, Python Packages & Modules |
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| Module 2: | (10 Hrs) |
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| Introduction to API, Selection and Creating the Dataset, Preprocessing and Loading Dataset, CSV, JSON, XML Handling, training the model, hyper parameters tuning, model testing types of model weights |
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| Module 3: | (10 Hrs) |
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| Model Conversion from TensorFlow to TensorFlow Lite format, Device-based models with TensorFlow Lite, Quantization Techniques, Deploying the model on Mobile Device or Microcontroller for Real Time Applications, Running a Tensorflow model in an Android Application |
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| Module 4: | (10 Hrs) |
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| Use cases: Implementation of Ball Tracking System for Cricket using Python, Smart Vehicle Tracking and Detection System, Real Time Intrusion Detection System, Healthcare Diagnostic applications |
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Capstone Project 1 - Machine Learning

Support and Assistance

Review & Discussion