

# Curriculum vitae

## PERSONAL INFORMATION



## Anand Dubey

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📅 Date of birth 1 Dec 1990

## WORK EXPERIENCE

01/03/2017–Present

### Thesis Artificial Intelligence in Computer Vision

Continental Automotive, Frankfurt (Germany)

Study and development of different compression technique for deep neural network used in computer vision tasks

- Algorithmic Compression: SqueezeNet, Dark Knowledge Distillation
- Mathematical Compression: Sparsity, Quantization
- Objective: Object Detection and Instance Segmentation

01/09/2016–26/02/2017

### Internship on Advance Driver Assistance System

IAV Automotive Engineering, Chemnitz (Germany)

Study and development of Stop and Go Longitudinal Controller for Autonomous Driving

- MATLAB Model (Rapid Control Prototyping)

Implementation of advance cruise controller for smooth acceleration and brake at low speed keeping minimum jerk and safety distance from target vehicle.

- Carmaker Simulation Tool

Adapted vehicle dynamics and power train of real car and compared behavior of simulation with real car.

01/07/2012–30/09/2015

### Software Developer

Continental Automotive Components (India) Pvt Ltd, Bangalore (India)

#### AUTOSAR Software Application : Model Based Development for Audi and Daimler

- MATLAB Sensor Model

Implementation of Voltage and Current sensor functional model which was used for error detection strategy in Actuators, switching the HAL Sensor, Linear Sensor, Motor Driver, System Basic Chip (SBC) on or off.

- Software and System Integration

Responsible for software and system integration testing of internal hardware error, microcontroller emulation where the CPU load, bus load, CPU life, EEPROM block used and task scheduling.

- Parameter Configuration

Responsibilities included requirement analysis, m-scripting to modify/add parameters, MATLAB Modeling of updated parameters and testing of delivered software on load bench

- Model-In-Loop (MIL) and Software-In-Loop (SIL)

Responsibilities include generation of Unit Test model from Implementation model for MIL and generation of executable code for SIL using target link and perform testing based on requirement.

#### Non-AUTOSAR Software Application : Embedded C Development

- CAN Network Management and Configuration of CAN messages, EEPROM blocks for PASE

Responsibilities include analysis and implementation of Functional Requirements to form State machine for network management on Embedded C platform including configuration of CAN message

and signals with their unique identifiers and Load Bench testing.

## EDUCATION AND TRAINING

01/10/2015–Present

### MS in Automotive Software Engineering

Technische Universität Chemnitz (2.1 \* ), Chemnitz (Germany)

#### Major Subjects:

- Multicore Programming (OpenMP, PThreads), Design of Software for Embedded System (ADA, C), Software Platform for Automotive System (CAN, AUTOSAR, V Model)
- Machine Learning (Supervised and Unsupervised Learning), Neurocognition, Computer Vision (Image processing and Understanding)

#### Projects:

- Car2X Communication Protocol Seminar : Concepts and communication protocol about car connectivity.
- Software development of Automotive ECU and Testing : Implementation of CAN bus functionality and model based AUTOSAR software

01/06/2008–01/06/2012

### B.Tech in Electronics and Communication Engineering

Jaypee Institute of Information Technology, Noida (India)

- **Practical Course:** Data Structure and Computer Programming Lab, Analogue and Digital Electronics Lab, VLSI lab, Object Oriented System and Programming lab, Microprocessor and Controller lab, Unix Programming lab

#### Projects:

- IEEE certified in Mathematica and Circuit Designing & Fabrication
- Car number plate identifier using Image Processing
- Implementation of Planar & non-planar conformal Antenna in MATLAB

## PERSONAL SKILLS

Mother tongue(s)

Hindi

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
German	A2	A2	A2	A2	A2
English	C2	C2	C2	C2	C2

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user  
Common European Framework of Reference for Languages

Communication skills

Good communication skills acquired through my 3 years of interaction and information with Indian and German colleague during my work as software developer.

Job-related skills

Operating Systems: Windows, Linux

Programming Languages: C, VHDL, PROMELA, Ada, Python

Framework: Autosar

Tools: Matlab (Simulink and Stateflow), dSpace-targetlink, CANoe, iSystem, Eclipse, Raisance Ride7 IDE, Ultradbugger,, WinIdea, DOORS, MKS, Ideas, CarMaker

Protocol: CAN, UDS

Methodology: V-Model

