

# Prasath Premapalan

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Date and place of birth: 17.12.1990, Colombo, Sri Lanka  
Nationality: Sri Lankan



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## Work Experience

March 2020 – Aug 2020

### Research Assistant

AKKA GmbH & Co. KGaA, Sindelfingen, Germany

- Implementation of feature-based Computer Vision techniques in developed annotation tool
- Development of functional algorithms for object interpolation in dynamic and stationary conditions
- Validating the annotation tool and implemented functions

Tools: *Python, PyQt, OpenCV, Numpy, Tensorflow, Keras*

July 2019 – Feb 2020

### Master Thesis

AKKA GmbH & Co. KGaA, Sindelfingen, Germany

- Theme: Methodology and tool to analyze and improve manual annotation behavior
- Prepare and develop experiments to analyze manual annotation
- Compare performance with automated annotation methods
- Provide annotators to analyze if the performance can be enhanced
- Design user friendly annotation tool Graphical User Interface (GUI)

Tools: *Python, PyQt, OpenCV, Pandas, Keras, Numpy, SQL*

Score: 1.2/ 5.0

March 2019 – June 2019

### Software developer (Intern) in HiL-Testing

AKKA GmbH & Co. KGaA, Sindelfingen, Germany

- Integration of a robot arm (Dobot Magician) with the PROVEtech-TA Toolchain through different interfacing models
- Creation of a PROVEtech-RE Generic Application in the programming language C ++
- Implementation and commissioning of Dobot magician arm with PROVEtech-RE in International trade fair

Tools: *Python, ROS, C++, LabVIEW (ROS tool), PROVEtech-RE*

Aug 2013 – Dec 2015

### Mechanical Engineer

MRF limited

- Responding to breakdowns and diagnosing faults
- Product development
- Calibrate machines to meet production goals
- Monitoring and commissioning plant and systems

Tools: *PLC-Programming, SAP, CAD, MS Office*

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## Education

Sept 2017 – Aug 2020

### **Master of Science**

Hochschule Ravensburg -Weingarten, Germany  
Major: Mechatronics  
CGPA: 2.1/ 5.0

July 2009 – May 2013

### **Bachelor of Technology**

National Institute of Technology, Trichy, India  
Major: Mechanical engineering  
CGPA: 7.21/ 10.0

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## Projects

Computer Vision Project

### **Emotion Detector**

Development of different human emotions (facial expressions) detection algorithm with Computer Vision techniques  
Tools: *Python, Numpy, Tensorflow, Keras, Open CV*

Hardware Project

### **System Analysis and Simulation with LabVIEW**

Implementation of a VI that adds sine waves to simulate a telephone with multi-frequency signaling  
Tools: *LabVIEW 2017*

Volunteer Project

### **Autonomous Parking**

Parallel parking and Bay parking of the mobile robot by using Arduino Uno and ultrasonic sensors  
Tools: *Embedded C*

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## Skills

Languages

English (Professional)  
Deutsch – B2 (Professional)  
Tamil (Mother tongue)

IT

Python (Pandas, Numpy, Scipy, Scikit-learn, OpenCV, PyQt, dlib)  
C/C++, Embedded C  
LabVIEW, MATLAB/Simulink  
SQL  
Robot Operating System (ROS)  
HTML5, CSS3, JavaScript  
Deep Learning (Tensorflow, keras)  
Microsoft Office (Word, Excel, Powerpoint)  
Git-Tools  
Power BI, Tableau  
Windows, LINUX

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## Hobbies

Playing Cricket, Swimming, Sketching, Playing flute and Photography

*Prasath -*

Pfaffenwaldering -Stuttgart, 01.01.2021