

VIGNESHWAR K R

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PERSONAL DATA

Nationality : Indian
Given Name : Vigneshwar
Surname : Karuppiyah
Ramanathan
Passport No : S1875227

TEST SCORES

- IELTS
 - o Date : 14 Nov 2021
 - o Overall : 7.5
- Goethe Zertifikat A2
 - o Date : 12 Oct 2019
 - o Score : 65 / 100
- Goethe Zertifikat A1
 - o Date : 1 May 2019
 - o Score : 90 / 100

LANGUAGES

Tamil 
Native
English 
ielts 7.5
German 
A2

ACADEMIC BACKGROUND

SRM INSTITUTE OF SCIENCE AND TECHNOLOGY *Jul 2016-Jul 2020*
B Tech in Mechanical Engineering *Score: 86.34 %*
NSN MATRIC HR SEC SCHOOL *Mar 2015-Apr 2016*
Higher Secondary *Score: 90.33 %*
SRDF VIVEKANANDA VIDYALAYA *Mar 2013-Apr 2014*
Central Board of Secondary Education *Score: 9.6 / 10*

PROJECTS

- QuickKart and TravelAway website *June 2021 – July 2021*
- o Developed two web applications (*shopping and travel company*) during [.NET Full Stack Development](#) training in Infosys using Visual Studio IDE.
 - o The database is built on Microsoft SQL Server, which is connected to the front end through API layer and Data Access Layer (DAL).
- Simulation of Cost Optimal 3d Environment Mapping Using Dual Axially Rotating Lidar Sensors *Aug 2020 – Sept 2020*
- o Engineered and programmed an innovative mechanical system containing dual axially rotating wheels which makes use of few sensors to reach most of the 3D space efficiently.
 - o The mathematical model of the system is simulated and the lidar's 3D space is mapped in [SCILAB](#) software using various parameters.
- Experimental Investigation and Performance Analysis of Heat Pipe *Feb 2020 – April 2020*
- o Fabricated a heat pipe setup with an Arduino-based temperature logging system, the efficient way of heat transfer is found by calculating thermodynamics characteristics under different input conditions.
- Arduino Based Surveillance Rover *Sept 2019 – Nov 2019*
- o Designed, programmed, and fabricated a Bluetooth controlled [Arduino-based](#) rover using Arduino UNO, DC motors, and bridge motor dual driver.
- Design and analysis of quadcopter frame structure *Feb 2019 – Mar 2019*
- o Designed and modeled Quadcopter frame model in [NX 10](#). Analyzed the model to check the reliability of the body in [Ansys Workbench](#).
 - o Static analyses are carried out based on the calculation of the magnitude of thrust produced by each motor and the weight of each component.

CONFERENCES / PRESENTATIONS

- Presented a paper on [Resilience optimization of octocopter drones using two-stage thrusters and thrust vector](#) locking at IEEE Global Conference for Advancement in Technology.
Vigneshwar, Ranjit Roshan and Noufal *Bangalore, Oct 2019*
- Presented a paper on [Experimental analysis of emission characteristics in I.C engines using catalytic convertor coated with Titanium dioxide and cobalt oxide catalyst](#) in National Conference on Current Research Outcomes in Mechanical Engineering. *SRM-IST, Chennai, Mar 2019*

IN-PLANT TRAINING

ILJIN AUTOMOTIVE PVT LTD

(May 2018 – Jun 2018)

- Engaged in the assembly of disc brake wheel axles and machining of its individual components.
- Gained industrial knowledge of manufacturing of various interior components of the automobile like door checker, control arms, and various joints.

POSITION OF RESPONSIBILITY

- **Football team Captain**
SRM-IST, Vadapalani
July 2019 – April 2020
- **Student Coordinator**
KRATORQ'19
SRM-IST, Vadapalani
Sep 2018 – Sep 2020
- **House Captain**
NSN Group of Schools, Chennai
June 2014 – May 2016

EXTRACURRICULAR ACTIVITIES

- Represented a private football club in the first division league for 3 seasons, participated, and won in various tournaments.
- Represented my university football team and won in various football tournaments.
- Volunteered in Sushanthi Seva, a community welfare organization from time to time since my schooling. Activities in assisted living facilities, retirement homes, and Emergency response activities during floods.

TECHNICAL SKILLS

Applications

Beginner :

Ansys Fluent, Additive manufacturing, LaTeX, OpenCV and NumPy

Intermediate :

AutoCAD, Catia, NX Unigraphics, Ansys Workbench, Arduino, MATLAB, Scilab

WORK EXPERIENCE

Infosys

April 2021 – June 2022

- Worked as a software developer under the Data and Analytics Legacy development team (DNA) in the finance domain with agile methodology.
- Predominantly developed REST backend API using Node.js, Express.js, and MongoDB. Used Mocha, Chai for unit testing JavaScript code.
- Developed and incorporated data marts, data warehousing, and ETL process using MS SSMS for providing business intelligence solutions.

Simulation Lab (Research Intern)

Feb 2021 – April 2021

- Analyzed aerofoil for generating high lift and tried to increase the aerodynamic efficiency of the wing by adding a feature below the wing flap.
- Analysis was conducted for various Parameters with different feature designs, angle of attack, and range of velocities. For each data, simulation was carried out in **Ansys Fluent** and then the parameter of the wing with the maximum efficiency (Lift-Drag ratio) is selected.

Arobot (Intern)

Sept 2020 – Dec 2020

- Designed various engineering applications using **AutoCAD**, **NX Unigraphics**.
- Collaborated and designed new industry automation applications.

IP RINGS LIMITED (Intern)

May 2019 – Jun 2019

- Worked in manufacturing of different gears used in the differential unit.
- Worked in tool drafting and designing in **AutoCAD** and **Catia V5**.

CERTIFICATION COURSES

Diploma in Product Design and Analysis

CADD Centre

- AutoCAD 2D, CATIA, Ansys Workbench, GD&T

Machine Learning Using MATLAB

Coursera

- Introduction to Supervised and Unsupervised learning algorithm.
- Basic practices followed, Case studies and projects.

Siemens NX Unigraphics

Udemy

- Drafting, Assembly, Part Modelling, Surface Modelling.

Basics of Finite Element Analysis (FEA) - I

NPTEL

- FEA is the simulation of a physical phenomenon. Score: 79 / 100
- Covered I-D BVP, time-dependent problems. Eigenvalue problems.

WORKSHOPS

Computer vision and Image processing

MIT, Chennai, Mar 2019

- Image processing using Python – OpenCV.
- Face recognition and drone path programming using DJI Tello SDK.

Artificial intelligence and Machine learning

SRM-IST, Chennai, July 2019

- AI, ML, deep learning and their applications.
- Popular algorithms, tools, Gartner cycle, and current trends.

Robotics Workshop (Isensobots)

SRM-IST, Chennai, Aug 2016

- Programming various sensors and modules using Arduino UNO and MEGA.
- Developing Line following robot and obstacle avoiding robot.

PROGRAMMING

Beginner – Python, C#

Intermediate – JavaScript, Java, DBMS, SQL, HTML, CSS, Git

DATABASE TOOLS AND IDE'S:

Microsoft SQL Server, MongoDB, Microsoft Visual Studio and VS Code, Jupiter

CLOUD COMPUTING SERVICE and PROJECT MANAGEMENT PLATFORM:

Microsoft Azure, Jira, Confluence