# DIWAKAR
# RAVICHANDRAN

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## OBJECTIVE

Versatile student with great interpersonal skills and experience in organizing, volunteering, coordinating, public speaking and teamworking. Looking forward to quenching my inquisitive mind by learning all that I can to contribute to society by applying all that I have learnt and by solving real world problems

## EDUCATION

**Bachelor of Engineering, Mechanical Engineering | BMS College of Engineering**
AUGUST 2015 – JUNE 2019
Graduated with 8.1 CGPA on a scale of 10. Consistently performing at top 5% of my class of 60 students with top 3% in the department of 240 students. Being very strong in Mathematics and

## EXPERIENCE

**Solutions Architect – AI/ML/Big Data | Amtrak Tech. Pvt. Ltd.**
SEPTEMBER 2019 ONWARDS
NVIDIA Partner

Responsible for accelerating customers Deep learning models for both training and inference using NVIDIA TensorRT and aid customers to adopt AI into their current workflows.

**Machine Learning Research Intern | NVIDIA Graphics Pvt. Ltd.**
JANUARY 2019 – SEPTEMBER 2019
Researched with 2 projects. To accurately predict crowd count in a densely crowded scene in India. To improve synthetic data generation by GANs by enhancing them using synaptic plasticity which resulted in a research paper submitted to CVPR ’20.

## SKILLS

- Python
- Deep Learning
- Object Oriented Programming
- Machine Learning
- MATLAB
- TensorFlow

## ACTIVITIES

- Presented a technical paper titled “Equipping robots with dynamic gesture recognition using computer vision and AI” as part of my final year project. Used 3D CNN LSTMs, 3D RESNets and CLDNNs as a part of our study and generated our own data sets.
- Prepared a robotic snake model which was presented for e-Yantra robotics competition as a part of our self-study in the field of Mechatronics and made a RC Car from scratch using Arduino and Arduino during December 2018.
- Presented a technical review paper on Hybrid engines and the current trends in Hybrid engines on 3rd December 2018 along with a report.
- Presented a technical review paper on the practical applications of PID controllers and to comment on the stability of various controllers based on Bode plots, Nyquist plots and Root locus and plotting the same using MATLAB
- Presented the effect of volute casing in a turbine and its ability to ensure safety of the shaft by minimizing radial shocks and loads.
- Prepared a MATLAB script for Finite element modelling for beam loaded with UDL and hence observed its characteristics and comparing the script results with theoretical calculations from formulae derived in Mechanics of Materials.
- Presented a model of a Mass-Spring-Damper system and its vibration characteristic and comparison with a finite element model in a report on 10/03/2018.
- Effect of shape of fins on heat loss from surfaces was studied and analyzed and presented as a report on December 2017.
- Participated in a workshop on 3D Printing conducted by ‘Dwail Pvt. Ltd.’ during Phase Shift-2017, a national level annual tech symposium of BMS College of Engineering held on 15th and 16th September 2017.
- Presented a review paper titled ‘A Review on Reuse and Recovery of Carbon fibers’ in INNCOM-15, a national conference on composites conducted by ISAMPE (Indian Society for Advancement of Materials and Process Engineering) in association with NAL (National Aerospace Laboratories) during 2nd and 3rd March 2017.
- Worked as an event coordinator and conducted a quiz named ‘Think Quick’, a mechanical quiz during Phase Shift 2016, a national level annual tech symposium of BMS College of Engineering held on 23rd and 24th September 2016.
- Analyzed the Deflection in 3 different types of beams, namely Simply supported, Overhanging, and Cantilever beams and their deflection behavior under same loading conditions was noted and presented as a report on April 2016.
- Presented a poster on the Effects of shapes of Orifice meter on Fluid flow and detailed description of the vena contracta and other effects to fluid flow were observed on April 2016
- Simulation analysis of a slider crank mechanism and a model of a 4-bar mechanism and to observe the graphs pertaining to velocity of various members using the software MSC Adams on November 2016.

- Design analysis of Power Screw in a Scissor Jack by conduction of a practical load analysis and referring to standard design formulas to determine the factor of safety of the given power screw on November 2016.

## CERTIFICATIONS

- Machine Learning
- Neural Networks and Deep Learning
- Improving Deep Neural Networks: Hyperparameter tuning, regularization, and optimization
- Structuring Machine Learning Projects
- Convolutional Neural Networks
- Sequence Models
- MATLAB Fundamentals

## ADDITIONAL SKILLS AND AWARDS

- Awarded best delegate in the Model United Nations conference conducted by BMS College of Engineering in the year 2015.
- Proficient in Tamil, Kannada, Telugu, Hindi, English with partial knowledge of French and Urdu.
- Active member of the Rotaract club of BMS College of Engineering.
- Coordinator for Mechanical Engineering Association of the institution.
- Chess player with an international FIDE rating of 1116 as on November 2018