

Ganesh Kumar Manyam

Resume

Toronto, Canada
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EDUCATION

M.Eng Civil Engineering (Emphasis in Transportation Engineering and Planning & Data Analytics) Jan 2022 - Present

University of Toronto, St. George Campus

Relevant courses: Introduction to Data Science for Civil and Mineral Engineers, Foundations of Data Analytics and Machine Learning, Transport Planning, Public Transit Operations and Planning

Bachelor of Technology(Civil Engineering) Jul 2015-May 2019

Mahindra École Centrale-Jawaharlal Nehru Technological University Hyderabad

Relevant courses: Transportation Engineering, Data structures & Algorithms, Communication Skills and Personality development Computer Aided Designing (Autocad, Staad Pro and Matlab)

Cumulative CGPA: 8.55/10

Graduated in First Class and was awarded the highest merit scholarship for three consecutive years (2016-17, 2017-18 and 2018-19) for excellence in academic performance

WORK EXPERIENCE

Civil Engineer-Tracks July 2019-Mar 2021

Keolis Hyderabad MRTS, Full-time

- Data collection of rail geometry and analysing of the track parameters using customised software
- Researched on corrugation of rails by analysing corrugation data across different metro lines
- Assisted the track department in periodic maintenance activities, track geometry car inspection program, rail defect inspection program, rail grinding program, rail replacement program and maintenance of continuously welded rail requirements

Research Intern May-July of 2018

Prof: Surendranath Somala, IIT Hyderabad, Full-time: [Project Link](#)

- Modelling and seismic analysis of concrete gravity dams and arch dams with double curvature
- Simulated earthquake effects on modelled dams using Abaqus, Autocad, and Matlab with varying radii
- Developed a methodology to consider various stress points during an earthquake while designing arch dams with double curvature

PROJECTS

CIV1498 Kaggle ML competition: Phishing Email Detection Jan-April of 2022

Prof: Sebastian Goodfellow, University of Toronto, St. George Campus, Full-time: [Project Link](#)

- Worked on the challenge of "Phishing Email" detection. Developed a classifier that classifies an email as either "Scam" or "non-Scam".
- Explored different classifiers and used F1-threshold plots to find the optimum threshold of each classifier

- Evaluated by mean F1 score in the Kaggle competition

CIV1498 Toronto Subway Data Analysis

Jan-April of 2022

Prof: Sebastian Goodfellow, University of Toronto, St. George Campus, Full-time: [Project Link](#)

- Conducted analysis of delays in the Toronto subway system using open-source data set with a team of three graduate students.
- Data cleanup, time-series and exploratory data analysis along with modelling were done using python
- Also analysed how the COVID-19 Pandemic affected the subway delays

Structural Health Monitoring using PNCs

Oct 2018-May 2019

Prof: Ataullah Khan, Arun Narayan, Mahindra École Centrale, Full-time: [Project Link](#)

- Developed sensors using LLDPE(Linear Low-Density Polyethylene) and MWCNTs(Multi-Walled Carbon Nano Tubes) at different composition percentages of MWCNTs
- Conducted studies on both MWCNT-Low Density Polyethylene Nano Composites and Thermosetting Polyurethane MWCNTs
- Found the strain-conductance correlation in the sensor and deduced a methodology for the detection of cracks on concrete beams

Maze solving robot

Oct-Dec of 2017

Prof: Vipin, Mahindra École Centrale, Full-time: [Project Link](#)

- Designed a 3-d maze solving robot using raspberry pi and IR sensors
- Developed the code on java for the robot based on the left wall tracking methodology in solving the maze
- Developed a code for maze generation with zero loops in the maze

ACHIEVEMENTS

- Presented a paper on 'Seismic analysis of double curvature arch dams' at Undergraduate Research Symposium, Mahindra École Centrale [Project Link](#)
- Won a 24 hours hackathon conducted by MECHacks. Developed an interface for aiding in graphical designing through interactive evolution using evolutionary algorithms on P5JS
- Completed 'BIM Fundamentals for Engineers' course from National Taiwan University [Certificate Link](#)

SKILLS

Programming Languages:

MATLAB, PYTHON, C++, EXCEL VBA, SQL,

Software:

ARCGIS, AUTOCAD, ETABS, IBM MAXIMO, MICROSOFT OFFICE SUITE, QGIS REVIT, SKETCHUP

Languages:

ENGLISH (PROFICIENT), FRENCH (BEGINNER), TELUGU (MOTHER TONGUE)