


# UMAL MANJITHA







## Civil Engineering Undergraduate

Motivated undergraduate student from University of Moratuwa with strong technical skills. Seeking to utilize civil engineering knowledge and apply academic concepts to real-world infrastructure projects during employment. Practical experience with AutoCAD, Revit, HEC-HMS, Python and SAP2000. Passionate about sustainably designing and improving structural systems, buildings, and utilities.

### EDUCATION

- **University of Moratuwa**  
*B.Sc. Engineering (Hons.) in Civil Engineering*  
Current GPA - 3.20/4.0   
Aug 2021 - Present
- **Rahula College Matara**  
*GCE Advanced Level - Physical Science Stream*  
Z - Score : 2.5532


### CONTACT

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### TECHNICAL SKILLS

- **Tools**  
SAP2000 | ETABS | Revit  
Prokon | CSI SAFE  
AutoCAD | Civil 3D  
HEC-HMS | Figma  
Git/Github | Android Studio

### WORK EXPERIENCE

- **Trainee Civil Engineer - State Engineering Corporation SL**  
*Dec 2023 - May 2024* | ETABS, MS Project, AutoCAD 
  - Gathered knowledge and hands-on experience in mass concreting, reinforcement works, site documentation, site planning, quality assurance

### PROJECTS

- **Assessing HEC-HMS model and Machine Learning performance in predicting river discharge**   
*Jun 2024 - Present* | HEC-HMS, ArcGIS, Python  
Undergraduate Research Project
  - Develop and calibrate a HEC-HMS model for simulating the discharge
  - Develop and train machine learning algorithms for predicting the discharge
  - Compare the performance of the HEC-HMS model and the machine learning algorithms
- **Comprehensive Design Project - Waterfront Development in Galle**   
*Oct 2024 - Present* | HEC-HMS, ArcGIS, Geo Slope, ETABS  
Contribution to the project
  - Stabilizing the 15m height steep slope at back of the site
  - Flood risk assessment for project site
  - Field Visit - Hydrological impact assessment
  - Making of the ETABS model for the building - ongoing
- **Shell Roof Design for Basketball Stadium**   
*Sep 2023* | SAP2000, AutoCAD, Grasshopper  
Project scope
  - Gave three alternative designs for the roof structure
  - Define the shape of the structure by form-finding method
  - Calculate the thickness of the shell by central line theory
  - Building a scale down physical model for testing
- **Leo Scroll**   
*Jun 2021* | App Development, Flutter, Android Studio  
Key Responsibilities
  - Member of App Development Team
  - Developed a cross-platform mobile app 'Leo-Scroll'
  - UI/UX Design for the app

## ● Frameworks

Finite Element Analysis  
Computational Fluid Dynamics  
GIS | BIM  
NumPy | SciPy | Pandas

## ● Programming Languages

Python  
JavaScript  
MATLAB  
C++  
LATEX

## ● Languages

English | professional proficiency  
Sinhala | native proficiency

## ● Sports

Swimming  
Badminton  
Hockey

## OTHER SKILLS

Leadership | Creativity

Graphic Design

3D Modeling & Design

Time Management

Team Work

## REFERENCES

## ● Coursera Project Network

R Programming, Machine & Deep Learning  
• Mining Quality Prediction Using Machine & Deep Learning

## EXTRACURRICULAR ACTIVITIES

### ● Civil Engineering Society University of Moratuwa

Public Relations Committee Lead | Jul 2022 – Present  
• Maintenance of [ces.uom.lk](https://ces.uom.lk) website, FB pages, LinkedIn

### ● Matara District Engineering Professionals Association

Lead Designer | Aug 2020 – Aug 2024  
• Coordinate Flyer, Video Designs for the Events and Meeting in the society

### ● Leo Club of University of Moratuwa (Leo District 306A2)

Member | Jun 2022 – Jun 2023

### ● Member of the School Hockey Team

Left Forward | 2014 – 2019

## COURSEWORK & ADDITIONAL TRAINING

### ● ETABS & SAFE in the Structural Design | Udemy

### ● Autodesk Revit & Robot Structural Analysis + Sheets + BOQ | Udemy

### ● Introduction to Data Science Specialization | IBM

Tools for Data Science, Data Science Methodology, Databases and SQL for Data Science with Python

### ● Project Management Specialization | Google

Project Initiation: Starting a Successful Project, Project Planning: Putting It All Together, Project Execution: Running the Project

### ● AutoCAD | Sault College of Applied Arts

### ● Civil 3D – MEGA course for Civil Works | Udemy

### ● Front-End Developer Professional Certificate | META

## VOLUNTEERING EXPERIENCE

### ● IEEE Student Branch University of Moratuwa

- Volunteered in "Rise Up Mora 2022" – Contributed to develop the interview web portal.
- Volunteered in ""Gammaddata IEEE Api" – Technical Team

### ● EXMO | 2023

- Web and App Team of the Marketing Committee
- Made 3D AR models for the App.
- Department facilitator for Surveying division

### ● Civil Engineering Society UoM

- Suhastha 2023 – Member of the Marketing and Fundraising
- Civil Padura 2025 – Member of the Video Editing Team