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

● **Prof. Lalith Rajapakse**

B.Sc. Eng. Hons. (Moratuwa), M.Sc. (Saitama), Ph.D. (Saitama), CEng, ECSL, MIESL.

Professor, Department of Civil Engineering, University of Moratuwa

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● **Dr. Chamal Perera**

B.Sc. Eng. Hons. (Moratuwa), M.Sc. (Moratuwa), Ph.D. (Nagoya).

Lecturer, Department of Civil Engineering, University of Moratuwa

Email: chamalp@uom.lk
Phone: +94 71 248 2872

● **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 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