

# Adnan Almulla

Al Zand St, Umm Suqeim 1, Dubai

+971508701298

adnan.almulla@outlook.com

LinkedIn – @Adnan-Almulla

## Personal Statement

---

Adnan is a Computational Structural Engineer with a keen interest in the intersection between structural engineering, programming, and sustainability. Experienced in structural analysis and software development, he supports engineering teams through digital tools, automated workflows, and advanced analysis models to drive efficiency throughout the project lifecycle. He focuses on developing optimization-driven solutions that enhance both the environmental performance and economic viability of structural systems.

## Professional Experience

---

Dubai, United Arab Emirates

February 2025 – Present

**Computational Structural Engineer** – Killa Architectural Design

Dubai, United Arab Emirates

January 2023 – February 2025

**Graduate Engineer** – Killa Architectural Design

- **Role Description:** As a Graduate Engineer, I am responsible for assisting the structures team in developing innovative structural concepts, modelling and analysing structures, preparing detailed reports, and effectively collaborating with other disciplines to ensure design coordination.
- **Key Projects:**
  - **B+G+46 Residential Building – Business Bay:**
    - Assisted the structures team throughout schematic and detailed design stages of the project through ETABs modelling, structural analysis, and concrete element rebar scheduling.
    - Prepared inter-drift displacement charts, long-term concrete deflection contours, and modal participating mass tables for internal and external reviewing.
    - Performed optimization sensitivity checks for reinforced concrete elements; resulting in an approximate 20% embodied carbon decrease.
  - **B+G+14 Residential Building – Al - Safa Canals:**
    - Successfully liaised with senior structural engineer and architects to deliver conceptual design submission.
    - Coordinated and assisted in structural framing including grid spacing, assessment of core shear wall locations, and initial structural element sizing.
    - Oversaw and led conception of ETABs model from initial architectural renderings to structural Revit drawings.

## Education

---

University of Bath - Bath, United Kingdom

September 2021 – November 2022

**MSc Civil Engineering: Innovative Structural Materials** – Result: Distinction

- **Key Modules:** Sustainable Concrete Design and Technology, Natural Building Materials, Multi-Disciplinary Project, Principles of Construction Project Management.
- **Key Learning:** This course enabled the development of problem-solving skills through the design of structural materials in novel applications. The advancement of knowledge in structural material science also enabled growth in critical thinking skills by investigating the efficiency of materials in sustainable structures.

Coventry University - Coventry, United Kingdom

September 2018 – May 2021

**BEng (Hons) Civil and Environmental Engineering** – Result: First Class Honours

- **Key Modules:** Structural Analysis and Mathematics, Structural Design, Geotechnics and Hydraulics, Engineering Analysis and Materials.

## Skills Profile

---

### Basic Skills:

- Native in English and working competency in Arabic.
- Fluent IT skills including the use of Windows OS, Microsoft Excel, and other Office products.
- Holder of valid UAE driving license.

### Intermediary Skills:

- Experienced in design of concrete elements to ACI 318-19 and steel elements to AISC Steel Construction Manual.
- Proficient at Rhino, Revit, and BIM 360 for modelling and BIM purposes.
- Competent in Python programming language for scripting, data analysis, and structural analysis purposes. Experienced in utilizing ETABS and various software API with Python to manipulate and post-process structural analysis data.

### Advanced Skills:

- Adept in modelling and performing structural analysis utilizing ETABS and SAFE. This includes linear, non-linear, dynamic, and buckling analyses.
- Experienced in interpreting complex data as derived from structural model analysis such as long term and long-term incremental deflections, modal periods, and base shear reactions.
- Proficient in the utilization of Grasshopper plugins such as Karamba3D and Kangaroo to perform optimization based linear and non-linear finite element analysis of structures and structural elements.

## Other Engineering Projects

---

### TRADA University Design Challenge - Passivhaus Timber Construction in South Hereford:

- Structurally designed and specified a two-storey timber community centre located in South Hereford.
- Designed the structure following Eurocode 5 and undertook detailed engineering design per the client's desired use case of the structure across its service life.
- Detailed and sketched solutions in collaboration with multi-disciplinary members following Passivhaus methodology.
- Through design for durability and efficient structural engineering, the submission achieved third place as the structure delivered net-zero embodied carbon and met Passivhaus plus standards.

### Design of Reinforced Concrete Bridge in Bahrain:

- Structurally designed reinforced concrete and prestressed concrete bridge solutions located in the aggressive marine environment of Bahrain.
- Delivered durable yet sustainable solutions to the client, with an emphasis on minimising the volume of concrete while meeting the required design criteria per Eurocode 2.
- By critically analysing the environment of Bahrain and the necessities of the project, the client's requirements were met while both cost and embodied carbon had reduced as a result of the proposed structural solutions.

## Professional Development and Achievements

---

- Active and participating member of the Institution of Structural Engineers. Working on continuing professional development to become a Chartered Structural Engineer.
- Participant of COP28 UAE panel, including discussions and engagement in decarbonization of cement and concrete industry.

## Hobbies & Interests

---

- Sports - Participated in intermural badminton and cycling as a representative for University of Bath.
- Reading - Avid reader of news reports, novels, and articles to expand personal repertoire.
- Boardgames – Frequent enjoyer of group related boardgames and group related activities.