# MANSOUR AL MARZOOQI

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#### **EDUCATION**

# University of California, Los Angeles (UCLA), Los Angeles, CA

June 2027

B.S. in Chemical Engineering, Semiconductor Concentration

B.A. in Economics

#### **EXPERIENCE**

## AlYahya Group - Vision 2030 Realization Office | Analyst

July 2025 - Present

- Designed a market segmentation model for 19 Saudi cities, uncovering 21% with untapped demand and 26% in prime investment zones, directly shaping regional growth strategy.
- Delivered data-driven investment insights by mapping cities into strategic quadrants, enabling targeted pricing and market activation with measurable ROI potential.

## American Institute for Chemical Engineers (AIChE) at UCLA | Member and Project Manager September 2024 - Present

- Led student projects focused on optimizing fluid dynamics systems, guiding teams through design iterations and performance analysis.
- Coordinated mentorship programs with SoCalGas to connect students with industry professionals, fostering career development and energy sector insights.

## Carlos G. Morales Guio UCLA Group | Researcher

November 2022 - Present

• Studied on improving metal hydride complexes by 14% using DFT simulations to facilitate laboratory synthetics.

#### **Mohammad Bin Salman Foundation** | Fellow

March 2023 - January 2024

- Developed a platform to nudge consumers, report, and consult clean energy companies on current electricity grids in an attempt to reduce energy energy demand by 20%.
- Led a 4-member team in a national UN SDG competition and developed a top-3 energy platform for feasibility and impact.

### Interdisciplinary Research Center for Hydrogen & Energy | Researcher

September 2020 - March 2024

- Acquired \$95,000+ fund from Saudi Aramco researching reticular chemistry, ultracapacitors, and H.E.R. catalysts.
- Patented 2 inventions and published 3 projects in green hydrogen, carbon capturing, and photovoltaics.

#### **University of Tokyo - Renewable Engineering Program** | Researcher

July 2023 - August 2023

- Visited, studied, and reported 14 employed renewable energy projects in Japan to the University of Tokyo with the Advanced Institute of Industrial Technology, optimizing the economic viability of its expedition.
- Collaborated with 3 fellows to pitch a short term project in employing perovskite solar cells to Venture Cafe Tokyo, aiming to increase solar cell dependency by 3% around the Tokyo prefecture.

#### Ministry of Communications and Information Technology (MCIT) | Intern

December 2022 - June 2023

- Interned at the Department of Technology Foresight Center for more than 300+ hours, focused on deployable advanced technology and economics.
- Analyzed insights on Computer-Interface Interoperability (CII) in Saudi Arabia within less than 5 years, providing insights on replicability, market sustainability, and technological equipment.

## RESEARCH PUBLICATIONS AND PROJECTS

- Real Estate Auction Performance Tracker: Categorizing Gradiented Growth Units for Strategic Targeting.
- Monetizing Smart Meter Data to Enhance Grid Stability and Renewable Energy Integration in Saudi Arabia.
- Synthesis of a photo-induced multifunctional Zr Based Metal-Organic Framework for CO2 capture and conversion.
- Enhanced light-responsive supercapacitor utilizing BiVO4 and date leaves-derived carbon (US Patent :US20250253100A1)

## **HONORS & AWARDS**

- KAUST Gifted Students Program (KGSP) Scholar in the department of Physical Sciences and Engineering.
- Regeneron International Science and Engineering Fair (ISEF) Second Place in Environmental Engineering and Energy Design, with a special award from Exxonmobil

# **SKILLS**

Technical Skills: MATLAB, AutoCAD, Google Workspace, and Microsoft Office.

Soft Skills: Technological Foresight, Process Optimization, Cost-Benefit and Balance Sheet Analysis.