

# MOHAMED ILYAN

Chemical Engineer

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Dubai, UAE



## SUMMARY

Result-oriented chemical engineer with 3 years of experience in project management, technical sales, and tech start-ups. Well-acquainted with process engineering in water treatment and biochemical production including development, implementation, and support of complex operations. Knowledgeable in Python frameworks related to data such as Pandas, NumPy and Matplotlib.

## EDUCATION

M.Sc. Chemical Engineering

[National University of Singapore](#)

2019 – 2021

Singapore

B.Sc. Biotechnology & Biochemistry (Honors)

[Hong Kong University of Science and Technology](#)

2014 – 2018

Hong Kong

## EXPERIENCE

Chemical Engineer

[Gargash Group – Trust Your Water ME](#)

2021 – Present

Dubai, UAE

Trust Your Water is a water treatment and water solutions company catering to the Hotel, Residential and Industrial sector.

- Managed key account water treatment and bottling plant projects providing engineering support with PFDs, P&IDs, datasheets, and as-built layouts.
- Conducted cost-benefit analysis for system modelling and proposal generation within 1-2 days turnaround time.
- Provide business development support by generating new leads, integrating sales data and pipeline projections into CRM dashboard.
- Handled after-sales maintenance services with a team of technicians and created SOPs for service data entry and analyzed data using python pandas dataframe.
- Developed technology booklet using literature review of scientific studies for presenting key technical information for website and marketing.

Biotechnologist

[Geb Impact Technology Co., Ltd.](#)

2018 – 2019

Hong Kong

Geb Impact Technology is a biotechnology start up in the Hong Kong Science and Technology Park working on algal R&D and production.

- Administered clean-room algal research and bioreactor production laboratory to meet monthly product deliverables.
- Collaborated with research team to develop novel growth media for aseptic cell culturing which resolved contamination issues, improving weekly production up to 120%.
- Designed and conducted research for innovative electro-chemical algae harvesting, which reduces harvesting time by 80%, that resulted in company utility patent application.
- Supervised interns on their research and created SOPs for lab data logging.

## Projects & Research

Python Database Design and Analysis: After-Sales

[Gargash Group – Trust Your Water ME](#)

HAZOP and Risk Assessment Report: Hydrocarbon Feed Unit

[National University of Singapore](#)

EPCM Contract: Oil & Gas Production Plant – Aspen Hysys

[National University of Singapore](#)

Capstone Project: Cancer Immunotherapy Literature Review

[Hong Kong University of Science and Technology](#)

## SKILLS

### Software

[AutoCAD](#) [Plant3D](#) [Tableau](#) [Aspen Hysys](#)

### Programming

[Python](#) [Pandas](#) [NumPy](#) [Matplotlib](#)

[Streamlit](#) [PyCaret](#) [Scikit-learn](#) [MATLAB](#)

[Atomic Simulation Environment \(ASE\)](#)

### Development

[GIT](#) [PyCharm](#) [Repl](#)

### Laboratory Techniques

[Cell-Cultivation](#) [Autoclave](#) [DNA extraction](#)

[Chromatography \(HPLC, GC\)](#)

[Bio-Safety Cabinet](#)

[Protein Detection Assays \(ELISA\)](#)

### Scientific Publications

[1] A. Wang, K. Yan, D. Chu, M. Nazer, N.T. Lin, E. Samaranayake, and J. Chang. (2019). Microalgae as a Mainstream Food Ingredient: Demand and Supply Perspective, "Microalgae Biotechnology for Food, Health and High Value Products", Chapter 2, 22/01/2020.

### Additional Information

- Hold UAE Driving License
- Hong Kong Permanent Resident
- Languages: English, Tamil, Hindi – working proficiency
- Typing Speed: 75+ WPM



Interests: Fitness; Data Science  
Programming; CAD; TED Talks

References available upon request