

# Tanya Ann Mathews

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## SUMMARY

- Strong time management skills with a proven ability to manage and complete projects, including successful collaborations with industry partners like Chevron.
- Demonstrated curiosity and commitment to learning by optimizing hydrocarbon recovery and developing novel processes for enhanced oil recovery (EOR) and oilfield water treatment. This drive for innovation resulted in multiple conference papers and publications.
- Strong interpersonal and communication abilities gained through mentoring and teaching undergraduate students at Texas A&M University, alongside significant data handling and reporting experience.

## WORK EXPERIENCE

### **EOR and Oilfield Water Treatment Expertise**

*Oct 2019 – May 2024*

Gained as a Graduate Research Assistant at Texas A&M University

- Problem-solving and critical thinking expertise with expertise in optimizing economic hydrocarbon recovery through sustainable enhanced oil recovery (EOR) processes, resulting in 3 conference papers and 1 upcoming peer-reviewed publication.
- Dynamic and motivated cross-functional collaborator, as evidenced by 2 collaborations leading to 2 conference papers and 1 peer-reviewed publication relating to oilfield water treatment.
- Creative thinker able to design novel processes and make informed decisions, resulting in 2 new experimental designs for CO<sub>2</sub> flooding and oilfield water treatment, respectively.
- Project management expertise with experience in applying new methodologies and technologies, as evidenced by 3 completed projects, including 1 with Chevron.

### **Transport Processes in Petroleum Engineering**

*August 2022 – May 2023*

Gained as a Graduate Teaching Assistant at Texas A&M University

- Strong interpersonal and communication skills with in-depth knowledge of fluid flow and production operations, as evidenced by mentoring undergraduate students for approximately 50 office hours per semester.
- Data handling and reporting skills gained by testing questionnaires and grade calculations for up to 70 students per semester.

### **Entrepreneurship Experience**

*March 2022 – March 2023*

Gained as an Energy Innovation Fellow at Greentown Labs

- Entrepreneurial skills focused on the energy sector gained by volunteering at 3 conferences and a workshop conducted by Bill Aulet.

### **Drilling Fluids Formulation**

*June 2018 – July 2018*

Gained as an Intern at Baker Hughes, a GE company in Kuwait.

- Risk estimation and mitigation expertise with experience in formulating and testing varying drilling fluids, resulting in 2 presentations and a verbal examination.

## Hydraulics and Completion Experience

June 2017 – July 2017

Gained as an Intern at Khuff General Trading and Contracting Company, Kuwait.

Enhanced documentation and reporting skills with knowledge in hydraulics and downhole completions, culminating in a written examination.

## EDUCATION

### DOCTOR OF PHILOSOPHY

May 2024

Petroleum Engineering

GPA – 4.0/4.0

Texas A&M University, College Station, TX

### MASTER OF SCIENCE

May 2021

Petroleum Engineering

GPA – 3.88/4.00

Texas A&M University, College Station, TX

### BACHELOR OF TECHNOLOGY

May 2019

Petroleum Engineering, Major Upstream

CGPA – 7.38/10

Pandit Deendayal Petroleum University, Gujarat, India

## TECHNICAL SKILLS AND CERTIFICATIONS

- **Technical skills:** Flow Assurance, Oil field water treatment, Enhanced Oil Recovery (EOR), including CO<sub>2</sub>, steam, and solvent flooding, Subsurface interpretation, and Drilling project planning.
- **Operation of several laboratory devices:** ICP-MS, IC, SEM-EDS, TGA/DSC, FTIR
- **Software proficiency:** ComboCurve, Spotfire, PHDwin, Petrel, Eclipse, MATLAB.

## AFFILIATIONS, AWARDS AND HOBBIES

- **Communication Chairperson** (Core-committee) of the SPE PDPU Student Chapter, facilitating university-industry communications.
- **Authored** articles for a quarterly magazine, SPE Orbit, as the SPE PDPU Student Chapter Documentation Officer.
- Nominated for “Faculty Excellence Award 2024” at Texas A&M University.
- Awarded the Patrick A. Graham Fellowship in 2019-2020 for academic excellence.
- Awarded **1<sup>st</sup> place** in AMET University SPE FEST 2018, Chennai, India, for **poster presentation** on “Fracbot technology for hydraulic fracture mapping.”
- Awarded **2<sup>nd</sup> place** in AMET University SPE FEST 2018, Chennai, India, for a **paper presentation** on “THAI-CAPRI technology for heavy crude reserves”.
- Volunteered for a rural summer program to teach underprivileged students in India.
- Enthusiastic traveler and avid hiker.