MOHAMED ZAMZAM

+1 7018855991 U1519163@umail.utah.edu Salt Lake City, UT, USA

Education

University of Utah, Salt Lake City, USA Doctor of Science, Chemical Engineering Advisor: Prof. Heather Holmes	2024-
University of North Dakota, Grand Forks, USA Master of Science, Chemical Engineering Advisor: Prof. Gautham Krishnamoorthy	2021-2023 GPA: 3.71/4.00
Qatar University, Doha, Qatar Bachelor of Science, Chemical Engineering	2016-2020 GPA: 3.85/4.00
Academic Awards and Scholarships	
 University of Utah, E.B. Christiansen Endowed Fellowship, 2024 University of North Dakota Chemical Engineering Department Fellowship, 2021 	
 Dean's List honoree for four consecutive years in recognition of exceptional academic achieve Ranked 2nd in the entire Chemical Engineering cohort based on academic performance, Qatar German Academic Exchange Service (DAAD) Scholarship Recipient, 2019 	ement, 2016 -2020 University, 2020
Publications	
Peer-Reviewed Journal Articles	
Zamzam, M.; Krishnamoorthy, G. Factors Influencing Outer Ash Deposition Rates During Con Earth Metal (PRB) Coal. (In progress)	nbustion of a High Alkali
Refereed Conference Proceedings and Presentations Alsaba, Wisam Hussam, <u>Zamzam, Mohamed</u> et al. "Using Synthetic Resins for Remova Produced Water." <i>Qspace.qu.edu.qa</i> , 2020, hdl.handle.net/10576/16638, https://doi.org/10.	l of Emulsified Oil from 29117/quarfe.2020.0103.
Professional Experience	
University of Utah, Salt Lake City Graduate Research Assistant, Prof. Heather Holmes	Jan 2025 – Present Salt Lake City, USA
 University of North Dakota, Grand Forks Graduate Research Assistant, Prof. Gautham Krishnamoorthy Employed <u>ANSYS Fluent</u> to simulate and analyze flow dynamics within coal-fired boilers, enhancing understanding of internal flow behavior Predicted ash deposition rates on boiler walls using CFD models, achieving strong correlation with experimental data. Gained a mechanistic understanding of ash deposition phenomena near boiler walls through detailed CFD analysis 	
 University of North Dakota, Grand Forks Graduate Teaching Assistant Worked as a Teaching Assistant for three courses in the Chemical Engineering department; CHE 315 (Design of Experiments), CHE 301 (Introduction to Transport Phenomena) and CHE 103 (Computing Engineers). 	Aug 2021 – Present North Dakota, USA Engineering Statistics and Tools for Chemical

UND Training with Microbeam Technologies, Inc. (MTI), Grand Forks

UND Training Program

• Trained by MTI team on coal sampling, boiler observations and deposition probe sampling at the Coyote Station, ND.

. Explored coal characteristics to ash behavior indices using the Coal Quality Management System (CQMS) software.

Merseburg University of Applied Science, Merseburg

Research Intern

• Worked as a research intern at the polymer service institute (PSM), and conducted experiments involving different types of Mechanical tests on several polymers.

- Gave a presentation at the Mechanical Engineering Department that entailed my experimental work.
- · Joined the research team for writing a review paper on strength of certain polymers. (Polyethylene, Polypropylene & PLMA)

Qatar University, Doha

Undergraduate Research Assistant, Dr. Hazim Qiblawey

- · Worked on a project that involved the usage of different types of resins for removal of oil from produced water.
- Conducted several experiments using three different types of resins, and determined the optimum resin for oil removal based on three factors; Adsorbent dosage, initial oil concentration and contact time. (Published a conference paper)
- Gave a presentation at the Annual Research Forum & Exhibition. (Qatar University)

Research Interests and Technical Proficiency

Research Interests

Combustion, Computational Fluid Dynamics, Multiphase Flow, Rocket Propulsion, Plasma Combustion & Data Science.

Programming Languages

C++, C & MATLAB.

Other Simulation Software

ANSYS (Fluent & SpaceClaim), Aspen Hysys & Aspen Plus.

Graduate Courses

Transport Phenomena (Heat Transfer & Fluid Mechanics), Combustion Theory and modeling, Rocket Propulsion, Air Pollution Control, Advanced Topics in Space Studies & Advanced Chemical Engineering Kinetics.

Memberships

Student Member, American Institute of Chemical Engineers (AIchE)

Student Member, Rocketry Club (UND)

Sept 2022 North Dakota, USA

June 2019 – August 2019 Savany, Anhalt, Cormany

Saxony-Anhalt, Germany

May 2019 – Dec 2019 Doha, Qatar