Hamed Gharedaghi

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EDUCATION

University Of Tehran

M.Sc., Mechanical Engineering,

Sep 2016 | GPA: 17.88/20

Thesis title | "Experimental investigation of nanoparticles concentration effects on gas bubble dynamics in a stagnant nanofluid column"

Supervisors | Professor Mehdi Ashjaee & Dr. Pedram Hanafizadeh

University of Tabriz

B.Sc., Mechanical Engineering,

Sep 2014 | GPA: 17.16/20

EXPERIENCE

TirganKimia | Python, Reactjs, HTML, CSS, Figma, Postgresql | Nov 2023 - Present

Tadarox.ir, Tirgan24.com

• Led the end-to-end design, development, and launch of the Tadarox website.

Automated Inquiry System Enhancement through Web Scraping

• Developed and executed a web scraping project to automate inquiries, optimizing processes and efficiency through innovative technology.

Karun Petrochemical Company | Python, Microsoft Excel, Matlab, Ansys (CFX, Fluent), Catia | Sep 2018 - Mar 2023

Research and Development Department

• Led negotiations with licensors, evaluated technical proposals, and conducted a comprehensive feasibility study for the CDC plant revamping project.
• Developed comprehensive Process Flow Diagram (PFD) which was the building block of material balance application.
• Engaged in the Computational Fluid Dynamics (CFD) study of the Ammonia Oxidation Reactor project.
• studied the CDC reactor's entrance to evaluate inlet geometry effect on catalyst life time.
• Conducted feasibility studies and technical research for the chlorine gas cylinder discharge project.

Financial Department

• Analyzed production, costs, and pricing for optimization.
• Utilized real-time market data for dynamic pricing adjustments.
• Produced management reports for actionable insights.
• Responsively managed budgets for cost-effectiveness and profitability.
• Created and deployed a material balance application in Python for production tracking and process optimization.

SKILLS

Software SKILLS | Python • Reactjs • JavaScript, CSS • HTML • Matlab • SQL • Ansys (Fluent, CFX) • Microsoft Office • Catia

SOFT SKILLS | Team Player • Bias for action • Deliver results • Problem Solving

HONORS & AWARDS

KRNPC | for distinguished R&D Unit in Production, Industrial, and Mining Sectors of Iran | 2020 | Mahshahr | Iran

IRAN Nanotechnology Innovation Concil | for M.Sc. thesis research, showcasing dedication to cutting-edge exploration and innovation in the field | 2016 | Tehran | Iran

CERTIFICATES

• **Frontend Development bootcamp |** Codingfront, Tehran, Iran | Dec 2023
• **Comfar Software |** Rahavaran Fonoon Petrochemical Co. (RFPC), Mahshahr, Iran | Jul 2019
• **Teaching Assistant Training |** University of Tehran, Tehran, Iran | Mar 2015

LANGUAGE

Native | Persian, Azerbaijani
English |Fluent (preparing for TOEFL exam)

RESEARCH INTERESTS

• Machine Learning • Data-Driven Analysis • Renewable energy • Experimental Study • Numerical Study • State-of-the-art Technologies

INTERESTS

• Self-improvement • Reading • Team sports

PUBLICATIONS

• Hamed Gharedaghi, Mir Ali Asghar Abdollahi, Mehdi Ashjaee, "Enhancement of Heat Transfer in Fe3O4 Nanofluid Flow Through a Magnetized Converging-Diverging Mini-Channel", (**submitted** to International Journal of Heat and Fluid Flow)

• Hamed Gharedaghi, S. Gita Sharafi, Alireza Sedighizadeh, "Inlet Geometry Influence on Catalyst Life Time Pattern in an Industrial Shell-and-Tube Reactor: A 3D-CFD Study", "The 12th International Chemical Engineering Congress & Exhibition (IChEC 2023)"

• Ahmad Dousti, Hamed Gharedaghi, Pedram Hanafizadeh, Mehdi Ashjaee, "Different nanofluids effect on bubble characteristics at the isothermal bubble column", "The Canadian Journal of Chemical Engineering", (https://doi.org/10.1002/cjce.24047)

• Hamed Gharedaghi, Ahmad Dousti, Javad Eshraghi, Pedram Hanafizadeh, Mehdi Ashjaee, "A novel numerical approach for investigation of the gas bubble characteristics in stagnant liquid using Young-Laplace equation", Chemical Engineering Science 173 (2017) 37–48

(http://dx.doi.org/10.1016/j.ces.2017.07.018)

• Hamed Gharedaghi, Ahmad Dousti, Pedram Hanafizadeh, Mehdi Ashjaee, "Numerical investigation of temperature increment effect on Bubble Dynamics in stagnant water and Al2O3 nanofluid column", "Particulate Science and Technology: An International Journal"

(http://dx.doi.org/10.1080/02726351.2017.1368754).