Ali BOZORGZADEH Mechanical Engineer

EDUCATION

2018-2022

2022—present Research Assistant, Babol Noshirvani University of Technology

M.Sc. in Mechanical Engineering, BABOL NOSHIRVANI UNIVERSITY OF TECHNOLOGY,

> THESIS TOPIC: Numerical Investigation of the Effect of Flow Pulsation and Increased Di-

scharged Voltage on Desalination and Energy Usage of Capacitive Deionization

> SUPERVISOR : Dr. Abas Ramiar

> GPA: 3.4 / 4.0

Capacitive Deionization (Electrical Double Layer (Modified Donnan (OpenFOAM

2013–2018 B.Sc. in Mechanical Engineering, BABOL NOSHIRVANI UNIVERSITY OF TECHNOLOGY

RESEARCH INTERESTS

CFD Numerics, Programming, Machine Learning

MICROFLUIDICS Particle Manipulation, Electrokinetic, Dielectrophoresis

MULTIPHASE FLOW Lagrangian Particle Tracking

OTHER Turbulence, Fluid-Structure/Solid Interaction

PUBLICATIONS

2023 Reza Derakhshan, **Ali Bozorgzadeh**, and Abas Ramiar. *Numerical Investigation of Ternary Particle Separation in a Microchannel with a Wall-Mounted Obstacle Using Dielectrophoresis*. Journal of Chromatography A (2023): 464079.

2020 Masoud Outokesh, Seyed S. M. Ajarostaghi, **Ali Bozorgzadeh**, and Kurosh Sedighi. *Numerical evaluation of the effect of utilizing twisted tape with curved profile as a turbulator on heat transfer enhancement in a pipe*. Journal of Thermal Analysis and Calorimetry 140, no. 3 (2020) : 1537-1553.

TEST SCORES

> IELTS: 7 { Speaking: 7, Listening: 7.5, Reading: 8, Writing: 6} – July 2023

> GRE: To be taken on June 3, 2024

TEACHING EXPERIENCES

> A collection of screencasts (in Persian) demonstrating development of custom OpenFOAM codes within a Linux command-line environment.

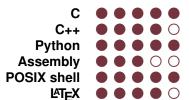
[Sep 2022, Babol Noshirvani University of Technology]

- > Shell
- > OpenFOAM High Level Programming

CERTIFICATES

- > Supervised Machine Learning Regression and Classification (link)
- > Advanced Learning Algorithms (*link*)

</> PROGRAMMING LANGUAGES





- > Version Control : Git
- > Build, Test & Analyze :
 - > make, CMake
 - > Google Test, Catch2
 - > gdb, lldb, valgrind, clang sanitizers, clangd, clang-tidy, clang-format, bear, ctags
- > Coreutils: grep, find, sed, awk, xargs, ...
- > Misc.: vim, tmux, SSH, Docker

</> LIBRARIES & FRAMEWORKS

- > Python: NumPy, Matplotlib, Seaborn, Pandas, Pytest, Scikit-Learn, PyTorch
- > C++: OpenFOAM, OpenGL, OpenMPI, OpenMP

ENGINEERING SOFTWARES

- > FreeCAD, Ansys Design Modeler
- > blockMesh, snappyHexMesh
- > Paraview, Gnuplot, Inkscape

66 REFERENCES

Dr. Abas Ramiar

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- @ aramiar@nit.ac.ir
- Google Scholar

Dr. Kurosh Sedighi

Associate Professor, BABOL NOSHIRVANI UNIVERSITY OF TECHNOLOGY

- @ ksedighi@nit.ac.ir
- Google Scholar

Dr. Mohsen Sheikholeslami Kandelusi

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- @ mohsen.sheikholeslami@nit.ac.ir
- Google Scholar