

ALI BOZORGZADEH

CFD & Scientific Computing Enthusiast

 [linkedin.com/in/abzrgzdh](https://www.linkedin.com/in/abzrgzdh)
 abzrgzdh@gmail.com
 [abzrgzdh.github.io](https://github.com/abzrgzdh)
 github.com/abzrgzdh

EDUCATION

2018 – 2022

M.Sc. in Mechanical Engineering, BABOL NOSHIRVANI UNI. OF TECH.

- GPA: 3.65/4
- THESIS TOPIC: Investigation of the Effect of Flow Pulsation and Increased Discharged Voltage on Desalination and Energy Usage of Capacitive Deionization. ([source code](#))

2013 – 2018

B.Sc. in Mechanical Engineering, BABOL NOSHIRVANI UNI. OF TECH.

EXPERIENCE

2025 – present

Open Source Contribution

- [solids4foam/fluid-benchmarks](#): Contributed benchmark cases, verification studies, documentation and code development.
- [solids4foam/solids4foam](#), [OpenFOAM](#), [preCICE](#) (CalculiX adaptor): documentation, minor bug report and bugfix contribution

2022 – 2023

Research Assitant, BABOL NOSHIRVANI UNI. OF TECH.

- TOPIC: Particle separation using dielectrophoresis and a gradient in momentum due to a wall-mounted obstacle. ([paper](#), [source code](#))
- Updated legacy code to be compatible with newer versions of OpenFOAM.

2022

Teaching Assitant, BABOL NOSHIRVANI UNI. OF TECH.

- Prepared a series of video [tutorials](#) on developing custom OpenFOAM code.

PUBLICATIONS

2023

[1] 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) DOI: [10.1016/j.chroma.2023.464079](https://doi.org/10.1016/j.chroma.2023.464079)

2020

[2] 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* (2020) DOI: [10.1007/s10973-020-09336-0](https://doi.org/10.1007/s10973-020-09336-0)

COMPUTER SKILLS

Programming Languages
Libraries/Specifications

C, C++, Python, Bash, L^AT_EX, Typst

C: MPI, OpenMP, PETSc

Python: Numpy, Matplotlib, Pandas, Sympy

CFD & CAD
Other tools

OpenFOAM, Paraview, FreeCAD, Inkscape, Gnuplot
Linux, Git, Docker

CERTIFICATES

ML Specialization, ([cert.](#))

- Supervised Machine Learning: Regression and Classification, ([cert.](#))
- Advanced Learning Algorithms, ([cert.](#))
- Unsupervised Learning, Recommenders, Reinforcement Learning, ([cert.](#))

LANGUAGES

English

- TOEFL (*2026*): 5.5/6.0 (R: 5.5, L: 5.5, W: 5.5, S: 5.5)
- IELTS (*2023*): 7.0/9.0 (R: 8.0, L: 7.5, W: 6.0, S: 7.0)

Persian

Native language

REFERENCES

Dr. Abas Ramiar
Dr. Kurosh Sedighi
Dr. Amirhosein Ghasemi

Supervisor & Co-author ([Google Scholar](#))
Course instructor & Co-author ([Google Scholar](#))
Thesis advisor ([Google Scholar](#))