

ALI BOZORGZADEH

CFD & Scientific Computing Enthusiast



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EDUCATION

2018 – 2022

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

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

2013 – 2018

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

EXPERIENCE

2025 – present

Open Source Contributor

- Projects: solids4foam/fluid-benchmarks, solids4foam/solids4foam, OpenFOAM (.COM), preCICE (CalculiX adaptor), etc.

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](#))

2022

Teaching Assitant, BABOL NOSHIRVANI UNI. OF TECH.

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

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) DOI: [10.1016/j.chroma.2023.464079](https://doi.org/10.1016/j.chroma.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* (2020) DOI: [10.1007/s10973-020-09336-0](https://doi.org/10.1007/s10973-020-09336-0)

SKILLS

Programming

- C/C++ OpenFOAM, Pthreads
- Python Numpy, Matplotlib, Pandas, SymPy
- Other programming languages: POSIX Shell, ^{۱۱۱۱۱۱}LaTeX

Tools

Linux, Git, Docker, SSH, Tmux, NeoVim, Emacs

Other Softwares

Ansys Fluent, Paraview, FreeCAD, Inkscape, Gnuplot

LANGUAGES

English

IELTS 7.0/9.0 (L 7.5, R 8.0, W 6.0, S 7.0)

Persian

Native language

CERTIFICATES

ML Specialization

- Supervised Machine Learning: Regression and Classification, Cert.
- Advanced Learning Algorithms, Cert.
- Unsupervised Learning, Recommenders, Reinforcement Learning, Cert.

REFERENCES

Abas Ramiar

Kurosh Sedighi

Mohsen Sheikholeslami

Supervisor/Co-author

Course instructor/Co-author

Course instructor/Thesis referee

Google Scholar

Google Scholar

Google Scholar