Hamed Khatam Bolouri Sangjoeei

Master of Energy Engineering
Bachelor of Mechanical Engineering

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Date Of Birth 09/04/1995

Work Experience

Research Assistant
Polytechnic University of Milan, Italy   09/2019-Ongoing
University of Tehran, Tehran, Iran   06/2017 - 06/2018

- Data-driven Building Behavior Prediction, used data-driven methodology, data exploration, develop a machine-learning model, cross validation approaches, Random forest regression, Predicting Gas and AC consumption for real case at Berkeley lab site, Building 74. using **Python, Pandas, Numpy, Matplotlib**

Marine and Hydrokinetic (MHK) Energy Research And Development lab, SELECTED PROJECTS:

- Modeling, Numerical Analysis and Optimization of Nano-fluid based concentrating Photovoltaic Thermal (CPV/T) Collector with Organic Rankine Cycle using **EES**
- Modeling, Numerical Analysis and Construction of solar desalination system for MAPNA group company competition, I introduced a Novel configuration of CPVT for solar receiver, using **EES** and **Solidworks**
- Solving Energy and Navier-Stokes Equations for incompressible flow in Channel using **Matlab**
- CFD Simulation and Parametric analysis of Ducted wind turbine (INVELOX), analyzing the effect of intake's diameter. innovate intake designing to increase energy density using **ANSYS fluent, CFX, Solidworks flow simulation, Autocad**
- Designing and 3D printing a prototype of pump and fan impeller using **CF_turbo, Solidworks**
- Heat transfer analysis in shell and tube heat exchanger using **ANSYS Fluent**, user defined functions **(Matlab)**

During these projects I was looking forward to tackle new technologies, I have analytical, entrepreneurial and result-oriented mindset and I value the power of teamwork and diversity in my projects.

Rotating Equipment and piping Engineer, internship   03/2015 – 06/2015
Oil industries engineering and construction company (OIEC), Tehran, Iran
I became familiar with specs writing, drawing P&ID and Process flow diagram (PFD) in an oil and gas plant and Selecting rotary equipment.

Education

M.Sc. Energy Engineering, Renewables and Environmental Sustainability
Polytechnic University of Milan 09/18 – ongoing

B.Sc. Mechanical Engineering
International University of Tehran   09/13 - 09/17

Publication & Awards

- Awarded Gold scholarship, M.Sc. Politecnico di Milano
- "Heat recovery of Nano-fluid based concentrating Photovoltaic Thermal (CPV/T) Collector with Organic Rankine Cycle" Journal: Energy conversion and management, 2019
- Top 5th team in solar desalination MAPNA company competition, Iran, Ongoing

Skills

- Programing Languages
  Python, MATLAB®, EES©, C++, FreeFem ++
- Application Microsoft Office®
- Mechanical Engineering : ANSYS® Fluent, Solid Works®, Auto CAD®, TRNSYS, CF_Turbo®

Selected Courses

- Energy And Environmental Technologies For Building Systems
- Computational Fluid Dynamics
- Electric Conversion Of Renewable Energy Sources
- Energy Systems
- Fluid Machines For Low-Carbon Technologies
- Fundamentals Of Chemical Processes For Energy And Environment
- Numerical Methods For Optimization & Functional Analysis And Numerics For PDEs
- Renewable Energy And Low-Carbon Technologies
- Smart Grids And Regulation For Renewable Energy
- Introduction to Data Science in Python by University of Michigan coursera
- Applied Machine Learning in Python by University of Michigan coursera
- Applied Plotting, Charting & Data Representation in python by University of Michigan coursera

Languages

English	●●●●●	Italian	●●○○○
Full Professional Proficiency		Limited Working Proficiency	
Persian	●●●●●	Arabic	●○○○○
Full Professional Proficiency		Limited Working Proficiency	