

Amir Mehrabi

Date and Place of Birth: *Tehran, Iran / 13.10.1993*

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Personal Profile

Experienced research assistant and project intern with a demonstrated history of working in the non-profit organizations, aviation and automotive industries. Skilled in Large eddy Simulation, Linear Stability and Turbomachinery analysis. Strong professional with a Master of Science (M.Sc.) focused on Mechanical Engineering from Istanbul Technical University.

Education

[09.2017 – 08.2020] **ISTANBUL TECHNICAL UNIVERSITY, TURKEY**
Master of Science in Mechanical Engineering / Heat & Fluid Program

GPA: 3.5

[09.2012 – 01.2017] **ISTANBUL TECHNICAL UNIVERSITY, TURKEY**
Bachelor of Engineering Degree in Mechanical Engineering

GPA: 3.17 (Honor list)

[2008 – 2012] **IRANIAN HIGH SCHOOL, ISTANBUL, TURKEY**
Curriculum taught in Persian and English

GPA: 19.38/20 (Honor list)

Work Experience

[12.2016 - Present] **Research Assistant** **ITU Fluids Group**
Istanbul, Turkey

Main duties performed:

- *MSc. Thesis: Use of Hydrodynamic Stability Approach for the Calculations of Inflow Boundary Conditions and Spread of an Axisymmetric Turbulent Swirling Jet*
- *As a teaching assistant design and analysis of De Laval nozzle as part of the Gas dynamic course project*

[08.2019 - 10.2019] **R&D Intern** **University of Rostock**
Institute of Piston Machines and
Internal Combustion Engines
Rostock, Germany

Main duties performed:

- *Working in the machine laboratory and focusing on the alternative fuels and emission trajectory via AVL smoke meter for V.W 2.0 L TDI CBAC test bench*

- Working in the Injection laboratory and helping on the investigation of the influence of various operating parameters of a high-pressure, high-temperature injection chamber on the combustion of a diesel spray
- 1-D simulation of the gas injector using AVL Boost program

[07.2016 - 09.2016]

Summer Intern

**Tekno Kauçuk Sanayii A.Ş
Gebze, Turkey**

Main duties performed:

- Helping design engineers on design and building of testing apparatuses.
- Helping in design and manufacturing of faulty product detector
- Acquiring knowledge of manufacturing technology, materials usage.

[07.2015 - 09.2015]

Summer Intern

**Iran Air
Iran, Mehrabad Airport**

Main duties performed:

- Engine Shop-(CFM56-5B Series, CF6-80C2A5F- JT9D-7A)
- Fiberglass Shop
- Sheet Metal Shop
- Design and Manufacturing of the cradle stand base for B727 A.P.U

[05.2015 – 06.2015]

Summer Intern

**Istanbul Technical University
Istanbul, Turkey**

Main duties performed:

- Use conventional machining tool,
- Different welding methods,
- Casting components,
- Use and read of the mechanical measurement equipment

LANGUAGE SKILLS

English	<i>Advanced (100% English education at ITU)</i>
Turkish	<i>Advanced</i>
Persian	<i>Native speaker</i>

Skills

Computer Skills:

- Computational Fluid Dynamics(CFD), ANSYS(ICEM CFD, Fluent)
- OpenFOAM
- AutoCAD
- SolidWorks
- PTC Creo
- Matlab
- C, Fortran77
- Microsoft Office (Word, Power Point, Excel)
- LaTeX
- Abaqus
- Flight Simulation
- Photoshop

Communication Skills:

- *Confident verbal communication skills as demonstrated delivering presentations at university and subject-related conferences. Audiences ranged from small groups to numbers of up to 70 people.*
- *Achieved consistently good marks of 60% upwards for academic assignments and reports as evidence of my written communication skills.*

PROJECTS

- ***MSc. Thesis: Use of Hydrodynamic Stability Approach for the Calculations of Inflow Boundary Conditions and Spread of an Axisymmetric Turbulent Swirling Jet***
September 2017 to February 2020
- ***Bachelor Thesis: Design and Numerical Study a Chimney to improve indoor air suction by using topographical and meteorological Databases (Bursa-Turkey Case Study)***
February 2016 to January 2017
- ***Worm Gears Design***
February 2016 to May 2016
- ***Greenhouse Design Using Co-Generation System***
February 2016 to May 2016
- ***Schmidt Offset Coupling Design***
November 2015 to December 2015
- ***Design of the Pipeline System***
February 2015 to May 2015

Clubs/Association Membership

- ***IAESTE (The International Association for the Exchange of Students for Technical Experience) Istanbul Local Committee Board Member***
June 2016 – September 2019
- ***ITU Society of Gastronomy***
Team Member
March 2015 – March 2017
- ***ITU Electrical Vehicle Team***
Mechanical Team Member
March 2015 – September 2015

Certifications

- **Real World Data Circulation**
Nagoya University (Japan) - ITU (Turkey) Summer School
July 2015 - August 2015
- *TOEFL : 92*
- *e-YDS (Turkish National Foreign Language Test-English): 88.5*
- *GRE: 156*

Hobbies and Interests

*Traveling (visited 36 countries), Backpacking,
Swimming, Cooking, Aviation Spotting, Flight Simulator, Photography*