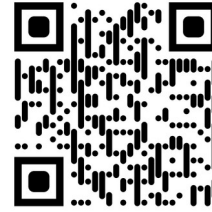


HAMED ABDOLLAHI

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LOC. Eindhoven, Netherlands

TEL. +31 (0)6 2241 0181



Mechanical Engineer

PROFILE:

Mechanical Engineer with experience in product development, engineering analysis, and mechanical design.

Technical Skills ➤ CAD • GD&T & Tolerance Stack-up • FEM, CFD • Technical Documentation • DFMA • Prototyping

→ ASME Y14.5 • ASME BPVC Section VIII

Engineering Tools ➤ SolidWorks • Siemens NX • CATIA • ANSYS • MATLAB • OpenFOAM • Teamcenter (PLM)

</> Python • Automation • Data Analysis • etc.

Professional Skills ➤ Technical Communication • Stakeholder Management • Multidisciplinary Collaboration

Portfolio: hamed.morpheidos.tech

LinkedIn: [In/hamedeo](https://in/hamedeo)

PROFESSIONAL BACKGROUND

Independent Consultant

Morpheidos Tech

Mar 2025 - Present
The Randstad, Netherlands

Providing engineering analysis and product development support for mechanical systems.

- Developed models to support design decisions for high-vacuum equipment.
 - Reduced simulation time by 60% by integrating a data-driven surrogate model (LBM, DSMC).
- Developed a digital twin model to assess thermal performance in a district heating network.
 - Identified measures with the potential to reduce thermal energy loss by 7%.

Product Developer

Digital Society School @ AUAS

Jan - Jul 2026
Amsterdam, Netherlands

Led a multidisciplinary team of 5 from requirements definition to final prototype delivery in an Agile project.

- Engineered, built, and tested prototypes using CNC machining, 3D printing, and electronic modules.
- Secured stakeholder consensus on a complex problem statement by establishing a unified scope.
 - Validated project requirements by aligning research findings and stakeholder input.

Mechanical Engineer

ASML

Nov 2023 - Sep 2024
Veldhoven, Netherlands

Component engineering and mechanical design of complex mechanical components within ASML Development & Engineering department.

- Prepared technical specifications and compliance criteria for vendor components, acting as a point of contact for internal competencies and external suppliers through NPI and qualification.
- Cut workload by ~50% by automating PLM workflow and engineering change management.
- Designed mechanical interfaces for core hardware modules.
 - GD&T, tolerance stack-up, DFMA, TPD, TDS, & BOM data using Siemens NX\TC.

Mechanical Design Engineer

AurangZib Gita Co.

Feb 2018 - Aug 2019
Isfahan, IR

Designed a high-pressure oxygen storage vessel for an electric arc furnace steel manufacturing plant.

- Structural design and calculations for a 40-bar vessel shell, using PV Elite per ASME VIII-1.
- Validated high-cycle fatigue life by conducting ASME VIII-2 FEM analysis via ANSYS Mechanical.
- Verified pressure drop by 12% via reverse-engineering & using ANSYS Fluent CFD on inlet manifolds.
- Prevented downtime by checking vendor drawings against P&IDs to fix nozzle mismatches.

Developer | Project Lead

ITResearches

2015 - Jun 2018
Tehran, IR/London, UK

Developed software and delivered 10+ technical projects in a team of 8+.

- Projects: Talee AI Intelligent Advertiser - International Corporate Services - Raya Office Solutions - MicrosoftPersia - IrPublishers - Vakaav - HotelM management (IOS, Android), ...

EDUCATION

Master of Mechanical Engineering Polytechnic University of Turin (PoliTo)

2023

Turin, Italy

Research Intern in Thermofluids Engineering Eindhoven University of Technology (TU/e)

Jan - Dec 2023

Eindhoven, Netherlands

Thesis: Secondary atomization and solidification of molten metal in gas atomization.

- Developed an OpenFOAM CFD model to simulate gas atomization dynamics.
- Implemented a thermal model for droplet cooling and solidification.
- Verified the numerical implementation and validated results against experimental data.
- Automated simulation and data analysis pipeline by bash/shell scripting for local and remote machines.

Guest Student ENSTA Paris, Polytechnic Institute of Paris

Apr - May 2022

Palaiseau, France

Sustainable energy for future transportation systems.

Bachelor of Mechanical Engineering University of Isfahan (UI)

2017

Isfahan, IR

Thesis: Thermal optimization and flow-field design of a liquid cooling plate for high temperature PEM fuel cell stack using ANSYS Fluent.

Mechanical Engineering Intern Mobarakeh Steel Co., Energy and Fluid distribution area.

May - Sep 2017

Isfahan, IR

Analyzed plant operating data to identify causes of performance losses in gas & steam power plant & documented corrective actions.

ABOUT ME

▪ **English** Business Professional ▪ **Dutch** Intermediate (A2-B1)