HAMED ABDOLLAHI

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LOC. Eindhoven, Netherlands
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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

PROFESSIONAL BACKGROUND

Independent Consultant
Mar 2025 - Present
Morpheidos Tech ***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
Jan - Jul 2026
Digital Society School @ AUAS ***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
Nov 2023 - Sep 2024
ASML ***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
Feb 2018 - Aug 2019
AurangZib Gita Co. ***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
2015 - Jun 2018
ITResearches ***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), ...

Resume

Hamed Abdollahi, M.Sc.
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EDUCATION

Master of Mechanical Engineering — 2023
Polytechnic University of Turin (PoliTo) — ***Turin, Italy***

Research Intern in Thermofluids Engineering — **Jan - Dec 2023**
Eindhoven University of Technology (TU/e) — ***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 — **Apr - May 2022**
ENSTA Paris, Polytechnic Institute of Paris — ***Palaiseau, France***

Sustainable energy for future transportation systems.

Bachelor of Mechanical Engineering — 2017
University of Isfahan (UI) — ***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 — **May - Sep 2017**
Mobarakeh Steel Co., Energy and Fluid distribution area. — ***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)