

HALIME PEHLIVAN

Software Developer

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📍 Heilbronn, Germany



SUMMARY

Analytic-minded Full-Stack Developer Candidate with a strong foundation in C/C++ and systems automation. Proven ability to leverage Mechanical Engineering background for robust **mathematical modeling** and **complex algorithmic problem-solving** in software development. Experienced with **C/C++, Python, TypeScript**, and relevant web technologies (HTML/CSS), aiming to specialize in **Back-End systems** and high-performance applications. Eager to rapidly acquire new expertise and contribute to high-growth engineering teams.

SKILLS

Core Programming & Data Engineering

MATLAB	C#	Python (Automaton/Data Processing)				Algorithmic Problem Solving		Shell Scripting
C Programming	C++	HTML	CSS	TypeScript		Mathematical Modeling		System Analysis
Sustainable Coding Practices								

DevOps & System Tools

Docker	LLDB/GBD (Debugging)	Git (Version Control & CI/CD Pipelines)	Unix/Linux Environments
Shell Scripting			

EXPERIENCE

01/2023 - 01/2024

Istanbul, Türkiye

- Research and Development Engineer

TMS Industrial Refrigeration Inc

- Architected and developed **in-house automation tools** using **Python** and **C#** to streamline complex capacity calculation and equipment selection processes for customized HVAC/R systems.
- Performed computational fluid dynamics (CFD) analysis (COMSOL) to validate and optimize fan cell geometry, enhancing internal fan efficiency.
- Applied principles of **data processing** and system sizing to optimize cooling load analysis, driving performance and cost efficiency.
- Utilized SolidWorks and SolidWorks Composer for patent development studies and advanced design visualization.
- Prepared P&IDs (Piping and Instrumentation Diagrams) of cooling systems using AutoCAD and developed design documentation to support feasibility, concept, and detailed design phases.

04/2021 - 09/2022

Istanbul, Türkiye

- Mechanical Engineer

ONUK-BG Industrial Defence Inc

- Reduced human error by {25%} and improved setup accuracy by developing NC code tracking and optimization system.
- Optimized **NC code programming (Siemens/Fanuc compatible)** for 3-axis and 5-axis systems, which drastically streamlined tool path deployment and increased operational efficiency.

ACTIVITIES

Heilbronn Assistance Team Member at 42 Heilbronn

Actively contributed to the **peer-to-peer learning model** by serving as an Assistance Team Member.

Mentored and guided peers on project methodologies and technical challenges. **Managed the onboarding and integration** of new student cohorts, ensuring rapid adaptation to the intensive learning environment. **Coordinated educational events** to foster a **collaborative and high-performing learning community**.

 07/2025 - 08/2025

Mechanical Team Mentor @Grizu-263

Led and mentored the mechanical team through the full lifecycle of CubeSat development, focusing on **system integration** and **interdisciplinary coordination**. Applied **MATLAB** for **simulation and modeling** of orbital mechanics and critical **deployment systems**. Managed the implementation of **data collection** protocols and **control algorithms** critical for mission success.

 2020 - 2022

EDUCATION

08/2016 - 02/2021

Türkiye

- Bachelor of Science Mechanical Engineering

Zonguldak Bülent Ecevit University of Faculty of Engineering

07/2024 - Present

42 Heilbronn

- Software Developer

42 Heilbronn

- Developed in-depth **C, C++, and Unix/Linux system programming skills** through a peer-to-peer, project-based learning model.

CERTIFICATION

MBSE: Model-Based Systems

University at Buffalo, Coursera

Digital manufacturing & design

University at Buffalo, Coursera

ATEX Training

IEP ENERGY PETROLEUM INSTITUE

AWARDS

2nd Place in Hackathon

2025

1st Place in TURKSAT Model Satellite Competition

2019 - 2020

2nd Place in NASA CanSat Competition

2018 - 2020

LANGUAGES

English

C1 German

B1 Turkish

Native