

ALPER ERDOĞAN

MECHANICAL ENGINEERING

PERSONAL INFORMATION

- Name: Alper Erdoğan
- Driver's License: Class B
- Military Service: Deferred (until 2028)
- Marital Status: Single
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EDUCATION

Trakya University – Mechanical Engineering (English)
Edirne, Turkey

- Status: Senior Student
- GPA: 3.18 / 4.00

Kağıthane Multi-Program Anatolian High School
Istanbul, Turkey

- Graduation Grade: 83.09 / 100

WORK AND FIELD EXPERIENCE

Önmetal AŞ General Workshop and Operations
Intern

- Analyzed production stages from an engineering perspective at an integrated facility manufacturing heat exchangers, where casting and assembly are conducted under one roof.
- General Workshop Internship: Practical on-site analysis of manufacturing methods, machining/non-machining processes, and foundry operations.
- Operations Internship: Evaluated factory organization, production planning, and the supply chain from casting to the assembly line within the framework of quality standards.

Consolidated Mineral And Rock Shop | USA (San Francisco, CA & Nevada & Arizona)International
Wholesale and Marketing Manager / Representative (Summer and Winter Breaks)

- Managed wholesale and operational processes at the San Francisco, California branch for two terms.
- Participated in the Arizona Tucson Gem Show, the world's largest gem and mineral show, for 5 consecutive years; personally managed show operations as an executive for the last 4 years.
- Organized exhibitions and conducted active sales 3 times at The Venetian Expo and 1 time at the Off-Price Show in Las Vegas, Nevada.
- Conducted international customer relationship management, implemented sales strategies, and gained advanced professional English practice.

Emel Elektrik | Edirne, TurkeyVolunteer Intern (1 Year)

- On-site observation and application of electrical theory practices.
- Gained a comprehensive understanding of sector operations and achieved technical development in renewable energy systems.

ENGINEERING PROJECTS

- Throughout my engineering education, advanced Computer-Aided Engineering (CAE) analyses were conducted to solve complex physical and mechanical problems. The ANSYS infrastructure was utilized for high-fidelity simulations in all the projects below:

Thermal Analysis of an Automobile Radiator:

- Conducted thermal simulation of water flow within a radiator to compare the heat transfer performance of different material constructions (Aluminum, Titanium, and Gold). Heat distribution and fluid dynamics analyses were resolved using ANSYS Fluent (Flow).

Design and Structural Analysis of a Chain Conveyor System:

- Designed an industrial slat chain conveyor system with a 300 kg load capacity operating at a speed of 1 m/s. The mechanical behavior of the structural frame and the slats on the conveyor belt, as well as stress and deformation analyses under load, were verified using ANSYS Static Structural.

Ballistic Impact Analysis (Graduation Project):

- Investigated the ballistic effects and deformation characteristics of NATO standard 7.62 mm, 5.56 mm, and 9 mm ammunition on Ti-6Al-4V (Titanium alloy), a critical material in the aerospace and defense industries. Simulations were executed at high strain rates by integrating ANSYS Explicit Dynamics, LS-DYNA, and AUTODYN models.

SKILLS AND TECHNICAL PROFICIENCY

- Engineering Software: ANSYS (Fluent, Static Structural, Explicit Dynamics), LS-DYNA, AUTODYN, AutoCAD (3D Modeling).
- Office Softwares
- AI and Software Development: AI Literacy, Advanced Prompt Engineering. Developed websites, established system automations, performed debugging, and developed auxiliary application integrations using Claude Code via the Anti Gravity infrastructure.
- Languages: English (Advanced - Fluency acquired through long-term professional work experience in the USA).

CERTIFICATIONS AND TRAINING

- Photovoltaic Solar Energy Systems Expertise – Konya Karatay University
- Traditional Entrepreneurship Certificate – KOSGEB
- AutoCAD 3D Drawing Certificate – Udemy