Aleyna Bolcu

Senior Chemical Engineering Student EU Work Permit



I am a senior Chemical Engineering student who is eager to learn and wants to consolidate theoretical knowledge in the workplace environment, and will graduate in June 2025.

CONTACT

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İzmir, Turkey

EDUCATION

Izmir Institute of Technology (Chemical Engineering Undergraduate Program)

High Honor Student GPA: 3.32 / 4

Izmir Atatürk High School 2016 - 2020

96.6 / 100

2020 - Present

PROFESSIONAL EXPERIENCES

TÜPRAŞ 10.2024 - 01.2025

Project Intern

Completed a project internship focused on "Effect of Inlet Temperature and Column Pressure in the Stabilizer Column on Fuel Consumption in the Stabilizer Furnace." Gained hands-on experience in a refinery environment, applying chemical engineering knowledge to industrial processes. Enhanced technical expertise and professional skills in energy efficiency and operational optimization within refinery operations.

Yuksel Research Group

10.2024 - Present

Volunteer Undergraduate Student

Volunteered in Prof. Dr. Aslı Yüksel Özşen's laboratory, contributing to research on bio-hydrogen production using organic waste derived from the thermochemical conversion of Turkish pine.

Akzo Nobel Kemipol 07.2024 - 09.2024

Project Intern (Colors of the Future Project Internship Programme '24)

Completed a 3-month project internship in the Wood Coatings R&D Department, focusing on solvatochromism in alkyd, nitrocellulose, and isocyanate resins. Conducted research on the solvatochromic behavior of dyestuffs and solvents while gaining comprehensive experience in R&D processes and detailed insights into paint and polymer production.

PilenPak Ambalaj San ve Tic.

07.2023-08.2023

Production Intern

Participated in a one-month internship in the production field, gaining hands-on experience in packaging processes, industrial machines, and materials (polymers, paper, glue, etc.). Additionally, developed skills in ink application and surface distribution.

<u>SYMPOSIUM</u>

KOMPEGE 2024 11.2024

VI. International Ege Composite

Materials Symposium

'Investigating the Solvatochromic Properties of Acid Blue 193 for Optimization of Colour Stability of Wood Coatings'

COURSES

Bio-Based & Water-Based Coatings

European Coatings Conference

Mathworks Training Services

MathWorks

Basic Entrepreneurship Program

Aygaz A.Ş. & Learneco

PROJECTS Effect of Inlet Temperature and Column Pressure in the Stabilizer Column on Fuel 01.2025 Consumption in the Stabilizer Furnace Optimized operating conditions in TÜPRAŞ's crude oil distillation unit to improve energy efficiency and reduce fuel consumption. **Reactor Design** 06.2024 Designed on-purpose propylene production reactors with propylene dehydrogenation (PDH) for direct propylene production. **Seperator Design** 06.2024 Designed a new value-added chemical plant that will convert furfural into maleic anhydride (MAN) including an absorption column and a multi-stage distillation column. **Heat Exchanger Design** 01.2024 Designed of a steam superheater in a nitric acid production plant. Fluid Flow / Piping Design 07.2023 Designed of a industrial facility using green ammonia as a hydrogen carrier. 01.2022 **Biobased Flame Retardants** Conducted research on bio-based flame retardants, exploring their current industrial applications and identifying potential future use cases based on their efficacy and sustainability. **CERTIFICATES** Yüksek Onur Öğrencisi 2023 / 2024 İzmir Yüksek Teknoloji Enstitüsü Rektörlüğü Create a Project Management Tracker using Microsoft Excel 02.2024 Coursera How to Use Lookup Reference Math and Text Functions in Excel 11.2023 Coursera **Learning Series: Python** 06.2023 IYTE Chemical Engineering Student Society Learning Series: Aspen Plus 06.2023 IYTE Chemical Engineering Student Society Ekonomi Eğitimi 04.2023

 LANGUAGES
 SKILLS

 Turkish (Native)
 MATLAB

 English (Full Professional Proficiency)
 Microsoft Office

İzmir Yüksek Teknoloji Enstitüsü Sürekli Eğitim Merkezi (İYTESEM)

MatLab Programming Course Completion Certificate

ORVILLE Learning Hub

Oyak Renault & Youthall

MathWorks

06.2023

04.2022