Ummu Gulsum Ergin

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EDUCATION

Rhein-Waal University of Applied Sciences

Kamp-Lintfort, Germany

MSc, Usability Engineering, GPA: 1.8 / 6.0 (Major GPA: 1.00)

Oct 2024 - Expected 2026

Relevant Coursework: Human-Computer Interaction, UX Project Management, ISO Standards, Accessibility, User Experience Design, User Interface Design

Design, Oser miterrace Design

Bahcesehir University, Istanbul, Turkey

B.S in Software Engineering, GPA: 3.4 / 4.0 (Major GPA: 4.00)

Oct 2019 - Jun 2024

Thesis: Ergonomic Risk Assessment Web Application with Java Spring, integrating ISO standards

Relevant Coursework: Data Structures & Algorithms, Database Management Systems, Software Architecture, Software Security, Software Verification & Validation, Object-Oriented Programming, Data Science with Python, Software Project Management

TECHNICAL SKILLS

Programming & Tools: Python, Java, JavaScript/TypeScript, React, HTML5/CSS, Spring Boot, Flask, REST API, Git, Figma

Prototyping & Hardware: Arduino, Digital Fabrication, Laser Cutting, Blender 3D

Methodologies: Agile (Scrum), Usability Testing, Accessibility Design

Certificates: Data Visualization with Python, IBM

Languages: Turkish (native), English (fluent), German & Korean (beginner)

WORK EXPERIENCE

Freelance Germany

UX & Full-Stack Developer | React, JavaScript/TypeScript, Figma, Miro, Git, Agile/Scrum

2024 - Present

- Delivered full-stack and UI/UX solutions for client projects, including web apps, digital invitations, and interactive prototypes.
- Integrated stakeholder feedback in agile sprints, improving user satisfaction and usability scores.
- Managed deployment processes, ensuring accessibility and security compliance.

Search Quality Improvement Specialist – Data Annotator

Remote, Turkey

Kovan App | Data Annotation Tools, Google Colab

Jul 20204 - Sep 2024

- Evaluated and annotated data to train AI models, ensuring accuracy and relevance.
- Collaborated with engineering teams to enhance model performance and user experience.

Front-End Web Developer

Ankara, Turkey Jul 2023 - Aug 2023

Pointo | HTML5, CSS, JavaScript, REST API, Bootstrap, Figma

• Built responsive websites with HTML5, CSS, JavaScript, and REST API integration.

• Applied UI/UX best practices to improve navigation and reduce bounce rates.

PROJECTS

Kui Bot: Museum Chatbot Kamp-Lintfort, Germany

Rhein-Waal University Usability Lab | Python, Flask, SQLite, JavaScript, Prompt Engineering

Oct 2024 - Jun 2025

- Designed and developed a persona-driven AI chatbot that simulates artists' voices (e.g., Frida Kahlo), enabling immersive museum storytelling.
- Implemented prompt engineering techniques to shape chatbot personalities and responses; planned migration to on-device/local models for faster, secure, and private interaction.
- Conducted usability testing (UEQ, MES) with 12 participants, improving story comprehension rates.
- Applied accessibility best practices for inclusive interaction design.

Ergonomic Risk Assessment Web Application

Istanbul, Turkey

Bahcesehir University | Java, Spring Boot, Thymeleaf, Bootstrap, ISO Standards, Usability Testing

Oct 2023 - Jun 2024

- Developed a responsive Spring Boot web application that automated NIOSH RWL calculations and generated PDF reports using iTextPDF, with a frontend built using Thymeleaf, Bootstrap, and JavaScript.
- Reduced task completion time from 100+ seconds to <5 seconds in usability tests (>80% completion rate).
- Implemented secure data handling and followed ISO ergonomic assessment standards.

LEADERSHIP

• Board Member & Social Media Contributor, Photography Club

Istanbul, Turkey

- Volunteer, Yesilay Raising awareness for addiction prevention
- Broadcaster, Bahcesehir University Radio Club

Oct 2019 - Jun 2024