# Erol Külüşlü
## SOFTWARE ENGINEER

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· https://medium.com/@erolkuluslusoftware

## SUMMARY

Passionate Mobile Application Developer with over two years experience architecting and launching cross-platform apps at the International Labour Association (ILA). Skilled in Flutter, state management, and secure data integration, supported by Agile methodologies and collaborative tools like Jira and Git. Proficient in deploying NER, OCR, and LLM-driven features using Python, spaCy, and easyOCR, as well as leveraging AWS Lambda. Committed to delivering high-performance, user-centric solutions, continually refining skills, and graduating with a BSc in Computer Engineering in January 2025.

## KEY SKILLS

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| · Flutter & Mobile Development | · Python | · Communication & Teamwork |
| · App architecture design | · AWS Cloud Services | · Proactive and self-motivated |
| · State Management (BLoC, Provider) | · SQL | · Analytical & Solution-Oriented |
| · Agile/Scrum Methodologies | · AI/ML/LLM | · Passion & Adaptability |

## PROFESSIONAL EXPERIENCE

**International Labour Association (Amsterdam)**                          Aug. 2024- January 2025
**Mobile App Developer**
Developed the ILA LMS platform, creating a mobile app that enables users to watch educational content and track their course progress. I architected the application from the ground up, choosing and implementing key technologies such as Flutter OAuth, auto_route, get_it, and BloC. Additionally, I utilized design tools like Figma for UI/UX development and Jira for task management.

**International Labour Association (Amsterdam)**                          Feb. 2024 - June 2024
**Machine Learning and Cloud Services Intern**
Built and optimized Named Entity Recognition (NER) models using Python with spaCy, developed Optical Character Recognition (OCR) solutions using easyOCR, and deployed and managed machine learning models using AWS Lambda functions for serverless computing.

**International Labour Association (Amsterdam)**                          Oct. 2022 – Aug. 2023
**Mobile Flutter Developer Intern**
As a Mobile Developer Intern from July to September 2022, I contributed the development of the ILA Mobile application. I defined the app's architecture and utilized 25+ Flutter packages, including Firebase and Google Maps. Applying Scrum methodologies with Jira.

## EDUCATION

**Bachelor of Computer Engineering**
Abdullah Gül University

**Erasmus Internship**
Completed a 3-month internship in the Netherlands, focusing on mobile application development.

## EXTRACURRICULAR ACTIVITIES

**Python Tutor**
Digital World @ Schools Project
Taught Python basics to intermediate topics, including real-life applications like OCR and NLP, to high school students across Europe.

**Erasmus+ Group Leader**
Led various Erasmus+ projects, facilitating international collaboration and cultural exchange.

# PROJECTS

**Flutter App Architecture Article**
**https://medium.com/@erolkuluslusoftware/the-best-flutter-app-architecture-exists-does-it-0ea8625f9848**
I wrote the article "The Best Flutter App Architecture Exists", reflecting on different approaches to Flutter app development rather than defining a single best method. I explored architectural principles such as Separation of Concerns, Layered Architecture, and managing State using tools like Provider, BLoC, Riverpod, and custom approaches without packages. I also examined navigation solutions like GoRouter and AutoRoute, data handling with Dio, SQLite, and Drift, and the role of Dependency Injection using get_it. The article highlights flexibility, thoughtful design, and adaptability based on specific project needs

**Image Classifier**
**https://github.com/erolkuluslu/image_classifier**
This project provides a comprehensive solution for image processing, smart cropping, image embeddings, feature extraction, dataset cleaning, and model training and inference using PyTorch. Additionally, it includes a Gradio-based web application for easy interaction with the trained model.

**Expense Tracking**
**https://github.com/erolkuluslu/expense_tracking**
This project is an intuitive expense tracking application developed with Flutter using BLoC as a state management solution. Users can easily add, edit, and delete expenses, and track their spendings by the timeline. It features a login page enhanced with Rive animations, an API service manager for scalability, and supports local data storage using Shared Preferences and SQLite.

**Mnemosyne's Nexus**
An advanced note-taking app with smart filtering, notifications, and integrated LLM capabilities to extract and summarize content from YouTube and websites. Built in Flutter using AutoRoute for seamless navigation, Provider for state management, and Firebase for real-time notifications. Features CrewAI, LLM integration, Shared Preferences for local storage, and optimized lazy loading for smooth performance implemented.

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# VOLUNTEERING

Worked in several international projects in cross-cultural teams across the Netherlands, Germany, Poland, Italy, Spain, Lithuania, Romania, Bulgaria and Türkiye. These initiatives aim to foster growth in areas such as digital literacy, entrepreneurship, media awareness, and environmental sustainability. Through these transformative experiences, I honed my skills in programming, non-formal education, critical thinking, teamwork and creativity during these Erasmus volunteering projects.

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# LANGUAGES

• **English**
Professional working proficiency

• **Turkish**
Native proficiency